

**Italian Chemical Society  
Division of Medicinal Chemistry**

---

European Federation for  
Medicinal Chemistry (EFMC)

American Chemical Society  
Division of Medicinal Chemistry (MC-ACS)

Asian Federation for  
Medicinal Chemistry (AFMC)

Sponsored by the International Union of Pure  
and Applied Chemistry (IUPAC)

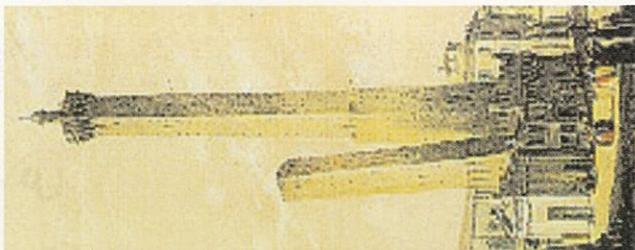
---

**XVIth International Symposium  
on Medicinal Chemistry**

**Bologna, Italy**

**September 18 - 22, 2000**

**Palazzo della Cultura e dei Congressi**



Università degli Studi di Bologna



**B O L O G N A**  
Città Europea della Cultura

---

**FINAL PROGRAMME**

# TABLE OF CONTENTS

---

P

Committees	
Sponsors	
Scientific Programme	
Poster Sessions	
General Information	
Tourist Information	
Social Programme	
Tourist Programme	
Programme Overview	



# XVI International Symposium on Medicinal Chemistry

18 - 22 September, 2000  
Palazzo della Cultura e dei Congressi  
Bologna, Italy

---

## LAST MINUTE CHANGES

### 1. SCIENTIFIC PROGRAMME

**Tuesday, September 19, 2000**

PL1 (9.00-9.45, Europauditorium) by R.R. Ruffolo will be replaced by:

“GABA and glutamate receptor ligands. Design, discovery and therapeutic aspects”  
*P. Krosggaard-Larsen* (Copenhagen, Denmark)

**Wednesday, September 20, 2000**

OC6 (12.30-12.45, Sala Italia) will be delivered by *O.N. Voskresensky*

**Thursday, September 21, 2000**

ML39 (10.30-10.55, Europauditorium) will be delivered by *J.-C. Rochet* (Boston, MA, USA)

ML42 (14.30-14.55, Europauditorium) will be delivered by *J.-M. Vernier* (La Jolla, CA, USA)

PB-157: “In silico HTS tests for CNS Penetration” *G.M. Keseru et al.* (Budapest, Hungary)

PA-49 will be discussed as PB-158

PB-159: “Directed library synthesis for kinase targets” *M. Coombs et al.* (Loughborough, UK)

PB-160: “Directed library approach to lead generation libraries” *S. King* (Loughborough, UK)

PB-161: “Exploring the possibilities of combinatorial biosynthesis anthracyclines”  
*T. Kumari et al.* (Galilaeus Oy, Finland)

**Friday, September 22, 2000**

PL3 (9.00-9.45, Europauditorium) will be delivered by *D.G. Trist* (Verona, Italy)

PC-159: “Protease inhibitors as antiviral drugs for the treatment of dengue virus infections”  
*D. Leung et al.* (Queensland, Australia)

PB-139 will be discussed as PC-160

PC-161: “The discovery of dual D<sub>2</sub>-receptor and β<sub>2</sub>-adrenoceptor agonists for the treatment of airway diseases”  
*R.V. Bonnert et al.* (Loughborough, UK)

PC-162: High throughput measurements and prediction of physico chemical parameters to predict absorption, an integrated approach” *C. Peake*, (Forest Row, East Sussex, UK)

### 2. SPONSORS

The Organizing Committee wishes to thank the companies and the organizations that have supported the Symposium. A complete list of sponsors is included in the Final Programme.

The following companies have also supported the Symposium:

Büchi  
Banca 121

Cambridge Discovery Chemistry has withdrawn its support.

## **GABA AND GLUTAMATE RECEPTOR LIGANDS. DESIGN, DISCOVERY AND THERAPEUTIC ASPECTS**

Povl Krogsgaard-Larsen  
Department of Medicinal Chemistry  
The Royal Danish School of Pharmacy  
2 Universitetsparken  
Copenhagen, Denmark

4-Aminobutyric acid (GABA) and glutamic acid (Glu) are the major central inhibitory and excitatory neurotransmitters, respectively. Most, if not all, neurones in the CNS are under the control of these transmitter amino acids, both of which have been implicated in a number of psychiatric and neurological disorders. GABA as well as Glu operate through multiple ionotropic and metabotropic receptors, all of which are potential targets for therapeutic intervention. The ionotropic GABA (GABA<sub>A</sub> and GABA<sub>C</sub>) and Glu (NMDA, AMPA and kainic acid) receptors are heteromeric receptors comprising different subunits, and in addition to the transmitter recognition site(s), most of these receptors contain allosteric or regulatory sites of pharmacological interest. Ligands acting at the receptor recognition sites are frequently designed using naturally occurring compounds as leads or by bioisosteric modification of the endogenous ligands, and these approaches have led to a variety of subtype-selective pharmacological tools and potential drugs. Ligands at additional receptor binding sites are typically discovered accidentally, and although such binding sites may not have any physiological function, such ligands may have considerable therapeutic interest. It is likely that receptor subtype-specific ligands will be identified within this category of compounds.

## COMMITTEES

### Scientific Advisory Board

D. Buckle (UK)  
A. Cordi (France)  
J. Frigola (Spain)  
W. Froestl (Switzerland)  
A. K. Ganguly (USA)  
H. D. Höltje (Germany)  
R. Imhof (Switzerland)  
K. Jacobson (USA)  
A. P. Kozikowski (USA)  
P. Krosgaard-Larsen (Denmark)  
A. Lipkowski (Poland)  
P. L. Orstein (USA)  
P. Portoghesi (USA)  
J. Poupaert (Belgium)  
D. Rees (UK)  
R. R. Ruffolo (USA)  
F. Sanz (Spain)

### MC-ACS

A. M. Doherty (USA)  
T. M. Perrin (USA)

### AFMC

N. Koga (Japan)

### EFMC

J.-C. Müller (France)

### Proceedings Editor

G. Ronisvalle (Catania)

### Scientific Committee

F. Dall'Acqua, chairman (Italy)  
C. Melchiorre, co-chairman (Italy)  
E. Aiello (Italy)  
P. G. Baraldi (Italy)  
D. Donati (Italy)  
A. Gasco (Italy)  
F. Gualtieri (Italy)  
E. Kyburz (Switzerland)  
A. Leonardi (Italy)  
B. Macchia (Italy)  
N. Mongelli (Italy)  
E. Novellino (Italy)  
R. Pellicciari (Italy)  
G. Tarzia (Italy)  
B. Testa (Switzerland)  
H. Timmerman (The Netherlands)

### Poster Review Committee

V. Tortorella, chairman (Bari)  
A. Caroti (Bari)  
F. Sparatore (Genova)  
V. Tunnari (Bologna)

### Organising Committee

C. Melchiorre, chairman (Bologna)  
A. Minarini, secretary (Bologna)  
A. Chiarini (Bologna)  
R. Gatti (Bologna)  
L. Mosti (Genova)  
M. Rambaldi (Bologna)  
M. Recanatini (Bologna)

## SPONSORS

The Organizing Committee gratefully acknowledges the financial support of the following companies and organizations:

Università degli Studi di Bologna

Ministero dell'Università e della Ricerca Scientifica e Tecnologica

Glaxo Wellcome S.p.A.

Cambridge Discovery Chemistry

Pharmacia Upjohn S.p.A.

Medco Research Inc.

Schering Plough S.p.A.

SmithKline Beecham S.p.A.

Fondazione Cassa di Risparmio in Bologna

Sigma Aldrich S.r.l.

Radleys Discovery Technologies

Stepbio S.r.l.

Ares - Serono S.A.

F. Hoffmann - La Roche AG

Novartis International AG

Prous Science

Alessandrini - Shimadzu

Argonaut Technologies AG - Alfattech S.p.A.

ACS Publications

Biotage UK Ltd

Molecular Simulations S.a.r.l.



CAMBRIDGE  
DISCOVERY  
CHEMISTRY

Medco  
RESEARCH INC.  
A King Pharmaceuticals Company

STEPBIO  
S.r.l.

SERONO  
A Division of IDEC  
Pharmaceuticals



NOVARTIS

ALESSANDRINI

SHIMADZU  
Solutions for Science  
Since 1818



A Subsidiary of Intellicore, Inc.

## SPONSORS

Kyowa Hakko Kogyo

RSP Amino Acid Analogues Inc.

Wisepress Ltd

Triplos S.a.r.l.

Waters S.p.A.

Federazione Ordini Farmacisti Italiani

Bracco

Ordine dei Farmacisti di Bologna

Mimotopes

Alfa Wassermann S.p.A.

AFM S.p.A.

Federfarma Bologna

Polichimica S.r.l.

Jasco Europe

Federfarma Emilia Romagna

Sogecos

Rolo Banca 1473

Labozeta

Bentham Science Publishers B. V.

Assessorato al Turismo Provincia di Bologna

F.A.V.S.

Ditta Di Giovanni



## SCIENTIFIC PROGRAMME

Monday, September 18, 2000

15.00-17.00	Registration	
17.00-17.30	Opening Ceremony Presentation of the Nauta Award	Europauditorium
17.30-18.30	Inaugural Lecture (II) Chairman: <i>P.S. Portoghese (Minneapolis, MN, USA)</i> Rational drug design. What will it look like at the end of the 21st Century? <i>D. Rich (Madison, WI, USA)</i>	
18.30-20.30	Welcome Cocktail Party	

Tuesday, September 19, 2000

8.00-9.00 Registration

9.00-9.45 Penary Lecture (PL1) Euroauditorium

Chairman: *A. Leonardi (Milan, Italy)*  
 Pharmacotherapy of the major cardiovascular diseases  
*R.R. Ruffolo (King of Prussia, PA, USA)*

Theme 1 Antihypertensive Agents Sala Italia  
 Chairman: *A. Leonardi (Milan, Italy)*

10.00-10.25 Main Lecture (ML1)

Applying modern technologies to research in hypertension: a promise for better drugs?  
*G. Gaviraghi (Verona, Italy)*

10.30-11.00 Coffee Break

11.00-11.25 Main Lecture (ML2)

Design, discovery, and pharmacology of the vasopeptidase inhibitor Vanlev<sup>TM</sup>: a novel agent for the treatment of hypertension and congestive heart failure  
*J.A. Robl (Princeton, NJ, USA)*

11.30-11.55 Main Lecture (ML3)

The emerging pathophysiological significance of endothelin in cardiovascular disease  
*J.D. Elliott (King of Prussia, PA, USA)*

12.00-12.25 Main Lecture (ML4)

Piperidine renin inhibitors: from leads to drug candidates  
*H.P. Mörki (Basel, Switzerland)*

12.30-12.45 Oral Communication (OC1)

Phenylalkynes: a new class of thrombin and factor Xa inhibitors  
*H.W.M. Pripcke (Bibertach an der Riss, Germany)*

Tuesday, September 19, 2000

Theme 2

The Impact of Organic Chemistry on Drug Discovery

Chairmen: *D.L. Boger (La Jolla, CA, USA)*  
*C. Chergillatoglu (Bologna, Italy)*

Euroauditorium

10.00-10.25 Main Lecture (ML5)

Natural products and nature's lessons: five natural products and five solutions to the sequence selective recognition of duplex DNA  
*D.L. Boger (La Jolla, CA, USA)*

10.30-11.00 Coffee Break

11.00-11.25 Main Lecture (ML6)

Synthesis of conformationally fixed nucleosides via radical cascade reactions  
*C. Chergillatoglu (Bologna, Italy)*

11.30-11.55 Main Lecture (ML7)

Structure-based design of nonpeptide HIV protease inhibitors  
*A.K. Ghosh (Chicago, IL, USA)*

12.00-12.25 Main Lecture (ML8)

Transmembrane ion transport mediated by polyethers in a precise conformation  
*J. Delgado Martin (Sevilla, Spain)*

12.30-12.45 Oral Communication (OC2)

High pressure synthesis of enantiomerically pure pyrazole[3,4-d]pyrimidines  
*R.J. Quinn (Brisbane, Australia)*

**Tuesday, September 19, 2000**

**Theme 3**

**Antihifective Agents**  
Chairman: *T. Kobayashi (Tokyo, Japan)*

Sala Topazio

10.00-10.25

Main Lecture (ML9)  
**Characterisation of inter- and intra-molecular interactions of the dengue virus RNA dependent RNA polymerase as potential drug targets**  
*S.G. Vasudevan (Canberra, Australia)*

10.30-11.00

Coffee Break

11.00-11.25

Main Lecture (ML10)  
**Recent advances in the field of quinolones**  
*M. Takenura (Tokyo, Japan)*

11.30-11.55

Main Lecture (ML11)  
**Design of new penem antibiotics based on  $\beta$ -lactam-interacting enzyme structures**  
*M. Ishiguro (Osaka, Japan)*

12.00-12.25

Main Lecture (ML12)  
**Discovery of Gemifloxacin (Factive, LB20304a): a quinolone of new generation**  
*C.Y. Hong (Tae-Jon, Korea)*

12.30-12.45

Oral Communication (OC3)  
**Identification of novel lipopeptides from Streptomyces Griseus TCA65 as inhibitors of bacterial leader peptidase**  
*J.A. Hueso-Rodriguez (Tres Cantos, Spain)*

12.50-14.00

Lunch Break

**Tuesday, September 19, 2000**

**Theme 4**

**Hypolipidemics/Antiatherosclerotics**  
Chairman: *D. Hickey (Harlow, Essex, UK)*

Sala Topazio

14.00-14.25

Main Lecture (ML13)  
**The discovery of GW 328713: a novel inhibitor of apolipoprotein-B secretion**  
*P. Marrès (Les Ulis, France)*

14.30-14.55

Main Lecture (ML14)  
**Lipoprotein-associated PLA<sub>2</sub> inhibition - A novel, non lipid lowering strategy for atherosclerosis therapy**  
*C. Leach (Harlow, Essex, UK)*

15.00-15.30

Coffee Break

15.30-15.55

Main Lecture (ML15)  
**The development of small molecule antagonists for the MCP-1 receptor**  
*C. Tarby (Wilmington, DE, USA)*

16.00-16.25

Main Lecture (ML16)  
**New carboline derivatives as inhibitors of the microsomal triglyceride transfer protein for the treatment of dyslipidemias: the discovery of imptiapide**  
*U. Müller (Wuppertal, Germany)*

Tuesday, September 19, 2000

Theme 5	Anticancer Agents	Sala Italia
14.00-14.25	Chairman: <i>M. Palmbo (Padua, Italy)</i> <i>N. Mongelli (Nerviano, Italy)</i>	
	Main Lecture (ML17) <b>Telomeric DNA: a novel target for chemotherapeutic intervention</b> <i>S. Neidle (Sutton, Surrey UK)</i>	
14.30-14.55	Main Lecture (ML18) <b>The design of irreversible inhibitors of the erbB family of transmembrane receptors</b> <i>W.A. Denny (Auckland, New Zealand)</i>	
15.00-15.30	Coffee Break	
15.30-15.55	Main Lecture (ML19) <b>Antisense and antigenic strategies for the treatment of cancer</b> <i>C. Hélène (Paris, France)</i>	
16.00-16.25	Main Lecture (ML20) <b>A new class of cytotoxic DNA minor groove binders, alpha-halogenoacrylic derivatives of pyrrolocarbonyl oligomers</b> <i>P. Cozzi (Nerviano (MI), Italy)</i>	

Tuesday, September 19, 2000

Theme 6	New Paradigms in Receptorology	Europauditorium
14.00-14.25	Chairman: <i>H. Timmerman (Amsterdam, The Netherlands)</i>	
	Main Lecture (ML21) <b>Virus-induced GPCRs: a new target for drug development</b> <i>M.J. Smit (Amsterdam, The Netherlands)</i>	
14.30-14.55	Main Lecture (ML22) <b>Molecular mechanisms of agonist-receptor interaction leading to activation</b> <i>H. Weinstein (New York, NY, USA)</i>	
15.00-15.30	Coffee Break	
15.30-15.55	Main Lecture (ML23) <b>Allosteric modulation of G protein-coupled receptors</b> <i>A.P. Litzerman (Leiden, The Netherlands)</i>	
16.00-16.25	Main Lecture (ML24) <b>Functional consequences of genetic variation in <math>\beta_1</math> and <math>\beta_2</math> adrenoceptors in the human population</b> <i>S.B. Liggett (Cincinnati, OH, USA)</i>	
16.30-18.00	Poster Session A	Foyer
21.00-22.30	Exhibition Concert (Chiesa dei Servi, Strada Maggiore)	

Wednesday, September 20, 2000

9.00-9.45	Plenary Lecture (PL2) Chairman: <i>T.J. Perun (Hempstead, TX, USA)</i> New developments in antiviral chemotherapy <i>E. De Clercq (Belgium)</i>	Europauditorium
-----------	--	-----------------

Theme 7

**Ligands for P<sub>1</sub> and P<sub>2</sub> Purinergic Receptors**  
Chairman: *P.G. Barraldi (Ferrara, Italy)*  
*K.A. Jacobson (Bethesda, MD, USA)*

Sala Topazio

- 10.00-10.25 Main Lecture (ML25)  
Structurally-related nucleotides as selective agonists and antagonists at P<sub>2</sub>Y<sub>1</sub> receptors  
*K.A. Jacobson (Bethesda, MD, USA)*
- 10.30-11.00 Coffee Break
- 11.00-11.25 Main Lecture (ML26)  
Selective A<sub>1</sub> adenosine receptor antagonists  
*E. Ongini (Milan, Italy)*
- 11.30-11.55 Main Lecture (ML27)  
A<sub>1</sub> Adenosine receptors and their ligands: overview and recent developments  
*C.E. Miller (Bonn, Germany)*
- 12.00-12.25 Main Lecture (ML28)  
New ligands at adenosine (P<sub>1</sub>) receptors  
*L.J.S. Knutsen (Wimersh, Berkshire, UK)*
- 12.30-12.45 Oral Communication (OC4)  
New structure-activity relationships of P<sub>2</sub>-receptor antagonists structurally related to reactive blue 2  
*M. Glänzel (Freiburg, Germany)*

Wednesday, September 20, 2000

Theme 8

**Antiviral Agents**  
Chairman: *J.D. Rodgers (Wilmington, DE, USA)*

Europauditorium

- 10.00-10.25 Main Lecture (ML29)  
Covalent and non-covalent inhibitors of HCV NSS protease  
*V.G. Matassa (Pomezia, Italy)*
- 10.30-11.00 Coffee Break
- 11.00-11.25 Main Lecture (ML30)  
Second generation NNRTIs active against clinically relevant mutant variants of HIV-1 containing K103N  
*S.K. Erickson-Vitman (Wilmington, DE, USA)*
- 11.30-11.55 Main Lecture (ML31)  
Inhibitors of viral mediated fusion  
*D.M. Lambert (Durham, NC, USA)*
- 12.00-12.25 Main Lecture (ML32)  
Inhibitors of HIV integrase: antiviral activity and mechanism  
*D. Hazuda (West Point, PA, USA)*
- 12.30-12.45 Oral Communication (OC5)  
New approach to the synthesis of amino acid phosphoramidates of AZT  
*J. Baraniak (Lodz, Poland)*

## Wednesday, September 20, 2000

### Theme 9

#### Natural Products

Chairman: *K. Wright (Wallingford, CT, USA)*

Sala Italia

10.00-10.25

Main Lecture (ML33)  
**Combinatorial biosynthesis: new tools for the medicinal chemist**  
*C. Khosla (Stanford, CA, USA)*

10.30-11.00

Coffee Break

11.00-11.25

Main Lecture (ML34)  
**Inhibitors of efflux pump mediated drug resistance from microbial fermentation**  
*M.D. Lee (Mountain View, CA, USA)*

11.30-11.55

Main Lecture (ML35)  
**Marine microorganisms: a major, new resource for drug discovery**  
*W. Fenical (La Jolla, CA, USA)*

12.00-12.25

Main Lecture (ML36)  
**The potential of plants as a source of new drugs**  
*K. Hostettmann (Lausanne, Switzerland)*

12.30-12.45

Oral Communication (OC6)  
**Natural flavonoids as a plentiful source of new drugs**  
*A.P. Ferrinich (Odessa, Ukraine)*

12.50-14.00

Lunch Break

Excursions

*14:00-14:00 NC Meeting*

## Thursday, September 21, 2000

### Theme 10

#### Neurodegenerative Diseases

Chairmen: *F. Giallari (Florence, Italy)*  
*E. Kyburz (Zurich, Switzerland)*

Europauditorium

9.00-9.25

Main Lecture (ML37)  
**Where do we stand with the pharmacological treatment of AD in the year 2000?**  
*E. Giacobini (Geneva, Switzerland)*

9.30-9.55

Main Lecture (ML38)  
**Muscarnic agonists and antagonists in the treatment of Alzheimer's disease**  
*W. Greenlee (Kenilworth, NJ, USA)*

10.00-10.30

Coffee Break

10.30-10.55

Main Lecture (ML39)  
**Protein fibrillization: a possible therapeutic target for Alzheimer's and Parkinson's diseases**  
*P.T. Lansbury (Boston, MA, USA)*

11.00-11.25

Main Lecture (ML40)  
**Mechanisms of cell death in Parkinson's disease**  
*P. Jenner (London, UK)*

11.30-11.45

Oral Communication (OC7)  
**Design, synthesis and biological activity of GPIIb/IIIa, a novel PPAR inhibitor**  
*V. Kalish (Baltimore, MD, USA)*

11.50-12.05

Oral Communication (OC8)  
**Modeling of acetylcholinesterase inhibitors: huprine X, a novel high affinity inhibitor**  
*F.J. Luque (Barcelona, Spain)*

12.10-12.25

Oral Communication (OC9)  
**Design and synthesis of conformationally restricted pyridylquinolines: the discovery of AR-R23465XX, a novel  $\alpha_7$  nicotinic agonist**  
*E. Phillips (Worcester, MA, USA)*

12.30-14.00

Lunch Break

14.00-14.25 Main Lecture (ML41)  
Muscarinic agonists reduce CSF levels of amyloid  $\beta$ -peptides in patients with Alzheimer's disease  
~~R.M. Wisch~~ <sup>H. Moeb</sup> (Zurich, Switzerland)

14.30-14.55

Main Lecture (ML42)  
The discovery of selective nicotinic acetylcholine receptor agonists for the treatment of CNS disease  
~~I. McDonald~~ <sup>S.H. Vester</sup> (La Jolla, CA, USA)

15.00-15.30

Coffee Break

15.30-15.55

Main Lecture (ML43)  
Novel, activity-dependent NMDA NR2B subtype selective antagonist as neuroprotective agents  
J.A. Kemp (Basel, Switzerland)

16.00-16.25

Main Lecture (ML44)  
Inflammation and axonal regeneration after traumatic spinal cord injury: new ways of intervention  
L. Schnell (Zurich, Switzerland)

## Thursday, September 21, 2000

### Theme 11

Ligands for Glutamate and GABA Receptors

Sala Topazio

Chairmen: W. Froestl (Zurich, Switzerland)  
R. Pellicciari (Perugia, Italy)

9.00-9.25

Main Lecture (ML45)  
Metabotropic glutamate receptors: structure and new subtype selective ligands  
R. Pellicciari (Perugia, Italy)

9.30-9.55

Main Lecture (ML46)  
Novel mGluR ligands acting as glutamate carboxypeptidase II inhibitors; role as neuroprotective and anti-angiogenic agents  
A.P. Kozikowski (Washington, DC, USA)

10.00-10.30

Coffee Break

10.30-10.55

Main Lecture (ML47)  
Discovery and characterisation of non-competitive antagonists of group I metabotropic glutamate receptors  
F. Gasparini (Basel, Switzerland)

11.00-11.25

Main Lecture (ML48)  
Constrained amino acids as probes for the glutamate recognition site of group II metabotropic glutamate receptors  
J.A. Moonn (Indianapolis, IN, USA)

12.30-14.00

Lunch Break

14.00-14.25

Main Lecture (ML49)  
Novel ligands for the GABA-A benzodiazepine binding site  
*A.M. MacLeod (Harlow, Essex, UK)*

14.30-14.55

Main Lecture (ML50)  
Ligands for expression cloning and isolation of GABA<sub>A</sub> receptors  
*W. Froese (Basel, Switzerland)*

15.00-15.30

Coffee Break

15.30-15.55

Main Lecture (ML51)  
Structurally novel AMPA potentiators: new opportunities for drug development  
*P.L. Ornstein (Indianapolis, IN, USA)*

16.00-16.25

Main Lecture (ML52)  
Orally active subtype-selective NMDA receptor antagonists for the treatment of Parkinson's disease  
*J. Wright (Ann Arbor, MI, USA)*

Thursday, September 21, 2000

Theme 12

Sala Italia

Pain and Inflammation

Chairmen: *D. Donati (Verona, Italy)*  
*M. Pinza (Pomezia, Italy)*

9.00-9.25

Main Lecture (ML53)  
Progress and future trend in the cyclooxygenase-2 inhibitors area  
*P. Prasiti (Dorval, Quebec, Canada)*

9.30-9.55

Main Lecture (ML54)  
Regulatory mechanisms of inflammatory cytokines as targets for drug design  
*A. Mantovani (Brescia, Italy)*

10.00-10.30

Coffee Break

10.30-10.55

Main Lecture (ML55)  
Novel bone antiresorptive agents which selectively inhibit the osteoclast vacuolar V-H<sup>+</sup>-ATPase  
*C. Farina (Baranzate, Italy)*

11.00-11.25

Main Lecture (ML56)  
Disease modifying anti-osteoarthritic drugs: current therapies and new prospects around protease inhibition  
*G. De Nanteuil (Suresnes, France)*

11.30-11.45

Oral Communication (OC10)  
Ketone based inhibitors of cysteine proteases  
*R.W. Marquis (King of Prussia, PA, USA)*

11.50-12.05

Oral Communication (OC11)  
ML 3000, a non-redox dual inhibitor of cyclooxygenase and 5-lipoxygenase  
*S. Lauffer (Blauen, Germany)*

12.10-12.25

Oral Communication (OC12)  
Development of  $\kappa$ -selective opioid agonists: optimization of 3,7-diazabicyclo[3.3.1]nonanones  
*U. Holzgrabe (Wittzburg, Germany)*

12.30-14.00

Lunch Break

14.00-14.25 Main Lecture (ML57)  
Novel glycine antagonists as potent antihyperalgesic agents  
*R. Di Fabio (Verona, Italy)*

14.30-14.55 Main Lecture (ML58)  
Inhibitors of sensory nerve sodium channels for the treatment of chronic pain  
*M. Nobbs (Stevenage, Hertfordshire, UK)*

15.00-15.30 Coffee Break

15.30-15.55 Main Lecture (ML59)  
Selective delta opioid receptor agonists for inflammatory and neuropathic pain  
*G.M. Donadio (Baranzate, Italy)*

16.00-16.25 Main Lecture (ML60)  
Specific kappa opioid receptor agonists  
*G. Ronsisvalle (Catania, Italy)*

16.30-18.00	Poster Session B	Foyer
20.00-23.00	Exhibition Gala Dinner (Villa Cicogna, San Lazzaro di Savena)	

## Friday, September 22, 2000

9.00-9.45 Plenary Lecture (PL3)  
Chairman: *P. Andrews (Brisbane, Australia)*  
The continuing evolution of the drug discovery process in the pharmaceutical industry  
*E. Ratti (Verona, Italy)*

Euroauditorium

9.50-10.20 Coffee Break

### Section A

**Oral Communications**  
Chairman: *V. Torrorella (Bari, Italy)*

Sala Italia

10.25-10.40 OCl3  
Discovery of the malonate Src SH2 binder RU85052. Synthesis and structure-activity studies  
*P. Depez (Romainville, France)*

10.45-11.00 OCl4  
Hydrogen bond activation of a Tyr-Arg-Tyr proton shuttle in the G protein-coupled  $\beta_1$ -adrenoceptor  
*R.H. Davies (Cardiff, Wales, UK)*

11.05-11.20 OCl5  
Crystal structures of human farnesyl transferase protein and structure-aided approach for lead optimization  
*A. Laoui (Vitry-sur-Seine, France)*

### Section B

**Oral Communications**  
Chairman: *P.L. Ornstein (Indianapolis, IN, USA)*

Euroauditorium

10.25-10.40 OCl6  
Polymer-supported reagents as versatile tools in combinatorial chemistry and total synthesis  
*J. Habermann (Cambridge, UK)*

10.45-11.00 OCl7  
CombiGrid, a computer program for the structure-based design of combinatorial libraries  
*V. Tschinke (Basel, Switzerland)*

11.05-11.20 OCl8  
High throughput measurements and prediction of physico chemical parameters to predict absorption, an integrated approach  
*C. Peake (Forest Row, East Sussex, UK)*

**Section C**

**Oral Communications**

Sala Topazio

Chairman: *E. Aiello (Palermo, Italy)*

10.25-10.40

OC19

Synthesis and pharmacological properties of novel ascomycin derivatives modified in the binding domain  
*K. Baumann (Vienna, Austria)*

10.45-11.00

OC20

Glucose-6-phosphatase catalytic enzyme inhibitors; synthesis and in vitro evaluation of novel 4,5,6,7-tetrahydrothienopyridines  
*P. Madsen (Malov, Denmark)*

11.05-11.20

OC21

Synthetic approaches to heterocyclic conformationally constrained aminobutyrphenones as active agents on dopamine and serotonin receptors  
*E. Ravina (Santiago de Compostela, Spain)*

11.25-13.00

Poster Session C

Foyer

13.00-14.00

Lunch Break

**Friday, September 22, 2000**

**Theme 13**

**Polyamines as Templates for Transmitter Receptor Ligands**

Sala Topazio

Chairman: *P.N.R. Usherwood (Nottingham, UK)*

14.00-14.25

Main Lecture (ML61)

Multiple sites of action of polyamines on signalling proteins  
*P.N.R. Usherwood (Nottingham, UK)*

14.30-14.55

Main Lecture (ML62)

Analogues of polyamine alkaloids and their synthetic advantages  
*M. Hesse (Zurich, Switzerland)*

15.00-15.25

Coffee Break

15.25-15.40

OC22

Polyamine toxins - synthetic and mechanistic studies  
*K. Stroemgaard (Copenhagen, Denmark)*

15.45-16.00

OC23

Selective antagonism of ionotropic receptors by philanthotoxin analogues  
*I.A. Mellor (Nottingham, UK)*

16.05-16.30

Main Lecture (ML63)

Highly negatively charged region identified in the vestibule of the nicotinic acetylcholine receptor's ion channel  
*M.G. Bixel (Berlin, Germany)*

**Friday, September 22, 2000**

<b>Theme 14</b>	<b>New Technologies</b> Chairman: <i>G. Giardina (Baranzate, Italy)</i>	<b>Sala Italia</b>
14.00-14.25	Main Lecture (ML64) <b>Bioinformatics and the data deluge in drug discovery</b> <i>C. Rawlings (Abingdon, UK)</i>	
14.30-14.55	Main Lecture (ML65) <b>Molecular diversity: how do we measure it? Has it lived up to its promise?</b> <i>Y.C. Martin (Abbott Park, IL, USA)</i>	
15.00-15.25	Coffee Break	
15.35-16.00	Main Lecture (ML66) <b>Technology platforms for combinatorial lead finding</b> <i>E. Felder (Nerviano, Italy)</i>	
16.05-16.30	Main Lecture (ML67) <b>NMR-screening: a paradigm shift for finding ligands for drug discovery</b> <i>M. Shapiro (Summit, NJ, USA)</i>	

**Friday, September 22, 2000**

<b>Theme 15</b>	<b>Pharmacokinetic Lead Optimisation</b> Chairman: <i>B. Testa (Lausanne, Switzerland)</i>	<b>Europauditorium</b>
14.00-14.25	Main Lecture (ML68) <b>Biological criteria in PK optimization</b> <i>J. Dressman (Frankfurt am Main, Germany)</i>	
14.30-14.55	Main Lecture (ML69) <b>Physicochemical properties in pharmacokinetic lead optimisation</b> <i>S.D. Kraemer (Zurich, Switzerland)</i>	
15.00-15.25	Coffee Break	
15.35-16.00	Main Lecture (ML70) <b>Structure-metabolism relations</b> <i>B. Testa (Lausanne, Switzerland)</i>	
16.05-16.30	Main Lecture (ML71) <b>Prediction of drug toxicity</b> <i>M. Cronin (Liverpool, UK)</i>	

16.35	<b>Closing</b> <b>Presentation of the XVII ISMC</b>	<b>Europauditorium</b>
-------	--	------------------------

## POSTER SESSIONS

### Session A: Tuesday, September 19

- PA-001 Bisphosphonate prodrugs: selective synthesis of mixed anhydride esters of clodronate  
*M.J. Ahlmark, J.J. Vepsäläinen* (Kuopio, Finland)
- PA-002 Conformational studies on synthetic peptides with prolactin-releasing activity in a membrane mimetic environment  
*S. Albrizio, A. D'Urzi, D. Picone, P. Rovero, P.A. Temussi* (Napoli, Italy)
- PA-003 Electropray mass spectrometry study of dicationic [1,4]imidazolidiophanes  
*N. Mesquida, I. Dinareš, M. Vilaseca, E. Alcalde* (Barcelona, Spain)
- PA-004 Molecular modelling, synthesis and antitumour activity of carbocyclic lexitropsins with chlorambucil moieties  
*D. Barilowicz, K. Bielawski, A. Rózsanski* (Białystok, Poland)
- PA-005 Computational simulations of recognition of new benzimidazole derivatives by the 5-HT<sub>2A</sub>  
*M.L. López-Rodríguez, B. Benhamú, A. Viso, M. Murcia, E. Alvaro, J. Sallés, L. Pardo* (Madrid, Spain)
- PA-006 DNA-binding properties and biological activity of novel aromatic amidines in cultured human skin fibroblasts  
*K. Bielawski, A. Bielawska, J. Palka* (Białystok, Poland)
- PA-007 Binding models for inhibitors of the receptor tyrosine kinases PDGFR- $\beta$  and FGFR-1  
*A. Botzki, S. Dove* (Regensburg, Germany)
- PA-008 Biologically active substituted 1,5-benzodiazepine-2-one  
*V.I. Bozhanov, L.V. Dmitrikova, S.P. Iwonin* (Dnepropetrovsk, Ukraine)
- PA-009 Novel substituted oxadiazepines with glucose lowering properties  
*A.N. Bowler, J.P. Kilburn, S. Engelhardt, G.M. Danielsen, P. Kurtzhals* (Måløv, Denmark)
- PA-010 Synthesis and biological evaluation of 3-alkylamino-7-chloro-4H-1,2,4-benzothiadiazine 1,1-dioxides as K<sub>ATP</sub> channel openers structurally related to BPDZ 73  
*S. Boyette, B. Becker, F. Somers, P. de Tullio, D. Dewalque, M.-H. Antoine, P. Arkhannar, F.E. Nielsen, J.B. Hansen, J. Damas, J. Delarge, P. Lebrun, B. Priote* (Liège, Belgium)
- PA-011 Synthesis of nicotinic derivatives using solid supported reagents  
*G. Brusori, S.V. Ley* (Cambridge, UK)
- PA-012 Synthesis of new simplified analogs of artemisinin: insight to their mechanism of action  
*B. Camuzzi-Dedenis, O. Povol, J. Mayrargue, H. Moskowitz, J. Cazalles, A. Robert, B. Meunier, L. Cléroun, F. Gay* (Châtenay-Malabry, France)
- PA-013 COMFA model for anticholinergic nitrofurane and nitrothiophene derivatives. Docking analysis on trypanothione reductase  
*V. Martínez-Merino, H. Cerecetto* (Montevideo, Uruguay)
- PA-014 Design and synthesis of heterocycles containing conjugated polyhydroxybenzene derivatives as potential protein kinase inhibitors  
*J.-W. Chern, P.-S. Hsu* (Taipei, Taiwan)
- PA-015 Force field study of the interaction between dilydroxypridine derivatives and a synthetic Ca<sup>2+</sup> channel  
*M. Cotta Ramisino, M.R. Vari* (Roma, Italy)
- PA-016 7-Substituted 3-isopropylamino-4H-1,2,4-benzothiadiazine 1,1-dioxides as potent K<sub>ATP</sub> channel openers: synthesis and biological *in vitro* evaluation  
*P. de Tullio, F. Somers, J. Quedrango, S. Boyette, M.-H. Antoine, B. Becker, F.E. Nielsen, P. Arkhannar, J.B. Hansen, J. Delarge, P. Lebrun, B. Priote* (Liège, Belgium)

### Session A: Tuesday, September 19

- PA-017 SAR and rational design of SRC SH2 binders around a heterocyclic scaffold. Identification of RUG4687, a subnanomolar and Src SH2 selective binder  
*P. Deprez, E. Mandine, I. Bahole, C. Bardelay, R. Boham, P. Broto, J.P. Marguette, D. Massardier, E. Sarubbi, A. Vermond, E. Sarubbi, S. Vier, G. Lange, B. Schoot, D. Lesuisse* (Romainville, France)
- PA-018 *In silico* studies for the screening and design of pharmacologically active compounds  
*E. Estrada, A. Peña, A. Montero, E. Molina, E. Uriarte, L. Santana* (Santiago de Compostela, Spain)
- PA-019 A fast datamining method using 2/3D fingerprints  
*A. Ferrami, A. Pozzan, G. Tedesco, A.M. Capelli* (Verona, Italy)
- PA-020 Design of new HIV-1 protease inhibitors  
*M. Romero, L. Gracia, J.J. Cuadrado, M. Font, J.J. Lasarte, I. Prieto, P. Sarobe, F. Borrás, N.B. Centeno* (Pamplona, Spain)
- PA-021 Towards the design of new peptidomimetic agents active in autoimmune diseases. Pharmacophore models based on the features of a set of immunomodulating peptides interacting with class II HLA proteins  
*L. Gracia, M. Romero, J.J. Cuadrado, M. Font* (Pamplona, Spain)
- PA-022 A pharmacophore search for phosphodiesterase 4 selective inhibition  
*P. Fosca, G. Menozzi, L. Mosti* (Genova, Italy)
- PA-023 Protection against oxidative damage by prodrugs of iron chelator N,N'-bis(3,4,5-trimethoxybenzyl)ethylenediamine N,N'-diacetic acid (OR10141)  
*J.-B. Cadley, P. Tachon, J. Dumais* (Aulnay sous bois, France)
- PA-024 Comparative molecular field analysis on non structural-related 5-HT<sub>3</sub> antagonists  
*E. Galvez, I. Iriepa, A. Morreale, D.B. Boyd* (Madrid, Spain)
- PA-025 Superimposition-based protocol as a tool for determining bioactive conformations. II. Application to GABA<sub>A</sub> receptor  
*E. Galvez, I. Iriepa, A. Morreale, D.B. Boyd* (Madrid, Spain)
- PA-026 Superimposition-based protocol as a tool for determining bioactive conformations. I. Application to glycinergic receptor (GLYR)  
*E. Galvez, I. Iriepa, A. Morreale, D.B. Boyd* (Madrid, Spain)
- PA-027 Structure-activity relationships of nitrofurans and nitrobenzofurans with trypanocidal activity  
*H. Cerecetto, R. Di Maio, G. Seoane, M. González* (Montevideo, Uruguay)
- PA-028 Field-interaction- $\beta$ ligand-optimization (F.I.L.O.) in the development of 3D-QSAR models for the rational design of selective adenosine receptor ligands  
*F. Melani, P. Gratteri, C. Bonaccini, M. Adamo, V. Colotta* (Firenze, Italy)
- PA-029 Discovery of potent and selective inhibitors of human steroid 5 $\alpha$ -reductase 1, as drugs for androgen-dependent skin disorders  
*A. Gianni, E.G. Occhinato, F. Macchietti, D. Scarpì, G. Danza, M. Serio* (Firenze, Italy)
- PA-030 Synthesis, photochemistry and application of coumarinmethyl-caged cyclic nucleotides  
*V. Hagen, B. Wiesner, S. Frings, U.B. Kaupp, J. Bendig* (Berlin, Germany)

- PA-031 Solid-phase intermolecular radical reactions: sulfonyl radical addition to isolated alkenes and alkyne  
*D. Hamza, S.J. Caddick, S.N. Wadman (Brighton, UK)*
- PA-032 An adapted nested polymerase chain reaction for detection of bcr-abl fusion mRNA in chronic myeloid leukemia  
*J. Kocik, A. Dmoszynska, J. Wojcietowski (Lublin, Poland)*
- PA-033 Modeling of  $\kappa$ -opioid receptor/agonists interactions using pharmacophore-based and docking simulations  
*A. Lanzetta, G. Greco, E. Novellino, F. Vittorio, G. Ronisavalle (Napoli, Italy)*
- PA-034 Synthesis of 1-(3,4-dihydroxy-5-nitrophenyl)-2-phenyl-ethanone and derivatives as potent and selective inhibitors of catechol-O-methyltransferase (COMT).  
*D. Leammonti, J. Benes, A. Vieira-Coelho, P. Soares-da-Silva (S. Mamede do Coronado, Portugal)*
- PA-035 Design and synthesis of 5-HT<sub>1A</sub> receptor agonists and antagonists by computational simulations  
*M.L. López-Rodríguez, M.J. Morcillo, B. Vicente, B. Benhamú, J. Saltes, X. Deupi, L. Pardo (Madrid, Spain)*
- PA-036 New glycosidase inhibitors suitable for purification of enzymes by affinity chromatography  
*I. McCort, A. Duréau, J.C. Depeyay, O. Bertain, R. Daniel (Paris, France)*
- PA-037 Effective access to enantiopure 2,4-ethanotreonines  
*U. Meyer, A.W. Frahm (Freiburg, Germany)*
- PA-038 Optimisation and validation of DiR methodology for virtual screening  
*I. Morize (Viry-sur-Seine, France)*
- PA-039 Computer-aided prediction of biological activity spectra of substances: complex evaluation of lead compounds  
*V. Porotkov, D. Filimonov (Moscow, Russia)*
- PA-040 Docking of acidovir analogs: success and pitfalls  
*P. Pospisil, L. Scapozza, G. Folkers (Zurich, Switzerland)*
- PA-041 The structural and electronic factors that contribute affinity for the time-dependent inhibition of COX-2 by NSAIDs  
*R. Poupiana, J.J. Lozano, A. Riera, J. Ruiz (Barcelona, Spain)*
- PA-042 Molecular properties prediction of drugs on the basis of structural similarity and physicochemical parameters  
*O.A. Raevsky (Chemogolovka, Russia)*
- PA-043 Oxobenzopyran derivatives as thrombin inhibitors  
*F. Bourdel, F. Lacom, C. Doucet, L. Pocher, A. Caiffish, B. Massereel, B. Pirrote, M. Reboud-Ravaux (Paris, France)*
- PA-044 Studies on enzymes involved in pantothenate biosynthesis  
*A. Saldanha, S. Westaway, A. Smith, C. Abell (Cambridge, UK)*
- PA-045 Molecular graphics study of some morpholin derivatives as new receptors  $\sigma$  ligands  
*C. Saurino, A. Capasso, G. Barone, M. Buonertta, G. De Martino (Salerno, Italy)*
- PA-046 Synthesis of sulfur containing heterocycles from thioamides for the screening of their biological activity  
*Yu.M. Shafiqan, V.A. Bakuley, V.S. Mokrushin (Ekaterinburg, Russia)*
- PA-047 Synthesis of novel ibuprofen derivatives designed to combine antioxidant, antiinflammatory and neuroprotective activity  
*I.C. Siskou, E.A. Releka, A.P. Kourounakis, D. Galanakis, P.N. Kourounakis (Thessaloniki, Greece)*

- PA-048 Application of pharmacophore models in the development of atypical antipsychotics  
*B.G. Zelman, E.J. Lloyd, M.G. Wong (Parkville, Australia)*
- PA-049 Pharmacoechemical study of the relationship between biological and oxidative stress  
*K. Tsikizizi, A.P. Kourounakis, Ek. Tami, P.N. Kourounakis (Thessaloniki, Greece)*
- PA-050 Preparation and *in vitro* trypanocidal activity of (+)-enryfuran derivatives  
*J.A. Valderrama, M. Cortés, D. Pessoa-Mahana, M. Preite, J. Benites, A. Rojas de Arias, H. Nakayama, S. Torres, A. Segovia, J. Miret (Santiago, Chile)*
- PA-051 1,2,3,4-Tetrahydroisoquinoline- and indole-based ligands for the 5-HT<sub>1</sub> receptor. Synthesis and molecular modeling of ligands and the receptor  
*E.S. Vermeulen, C.J. Grol, H.V. Wikström (Groningen, The Netherlands)*
- PA-052 Natural system of organic compounds (NSOC) as a guide in molecular diversity  
*O.M. Voskresensky (Odessa, Ukraine)*
- PA-053 Synthesis and SAR study of novel 5-aryl benzimidazolones as progesterone receptor antagonists  
*P. Zhang, E.A. Terefenko, Z. Zhang, Y. Zhu, K. Marschke, D. Mais (Radnor, USA)*
- PA-054 New N-3 substituted 2,3-benzodiazepines with AMPA antagonist activity  
*J. Borcký, Z. Rátkai, G. Simig, G. Lévai, G. Szabó, G. Szénási (Budapest, Hungary)*
- PA-055 8-Azaspiro[4.5]decane-7,9-dione derivatives as selective antagonists at the  $\alpha_{2B}$  adrenergic receptor  
*D. Baricco, F. Montesano, G. Cignarella, G. Motta, E. Poggessi, A. Leonardi (Milano, Italy)*
- PA-056 BMY 7378 analogs as selective antagonists at the  $\alpha_{2B}$  adrenergic receptor  
*D. Baricco, F. Montesano, G. Cignarella, E. Poggessi, G. Motta, A. Leonardi (Milano, Italy)*
- PA-057 Design and synthesis of new naphthosulfam and naphtholactam derivatives as 5-HT<sub>1R</sub> ligands  
*M.L. López-Rodríguez, M.J. Morcillo, E. Porras, B. Benhamú, L.J. Soto, J.A. Ramos, J.L. Lavandera (Madrid, Spain)*
- PA-058 Philanthotoxin-343i: a structure-activity study on the nicotinic acetylcholine receptor  
*T. Briet, K. Stromgard, I. Mellor, K. Andersen, J. Jaroszewski, P. Krosgaard-Larsen, P. Usherwood (Nottingham, UK)*
- PA-059 Inhibition of nicotinic and muscarinic acetylcholine receptors by polyamine amides  
*R. Bidrissi, A. Charrin, S. Rizoli, T.J. Briet, I.R. Mellor, P.N.R. Usherwood, K. Popaj, M. Lochner, Y. Li, M. Hesse (Bologna, Italy)*
- PA-060 Cardiovascular characterization of [1,4]thiazino[3,4-c][1,2,4]oxadiazol-1-one-derivatives: selective myocardial calcium channel modulators  
*R. Bidrissi, B. Cosimelli, P. Ioan, D. Spinelli, A. Charrin (Bologna, Italy)*
- PA-061 Pyrazolo-triazolo-pyrimidine derivatives as adenosine receptor ligands: a search for A<sub>2A</sub> adenosine receptor antagonists  
*B. Caccari, G. Spalluto, P.G. Baraldi, R. Romagnoli, K. Varani, S. Gessi, S. Merighi, P.A. Borea (Ferrara, Italy)*
- PA-062 Synthesis and evaluation of *trans*-2-amino-5(or 6)-chloro-6(or 5)-hydroxy-1-phenyl-2,3-dihydro-1H-indenes as dopamine receptor ligands  
*A. Di Stefano, G. Luisi, I. Cacciatore, P. Sozio, B. Mossiati, G.M. Cingolani, F. Pinnen (Chieti, Italy)*

- PA-063 Synthesis and binding studies of 1'-C-methyl-2-chloroadenosine and its N<sup>6</sup>-substituted derivatives as adenosine receptor agonists  
*L. Cappellacci, P. Franchetti, S. Marchetti, B. Costa, C. Martini, M. Grifanini (Camerino, Italy)*
- PA-064 4,5-Dihydro-2-phenyl-1,2,4-triazolo[1,5-a]quinoxaline derivatives as highly potent and selective A<sub>2</sub> adenosine receptor antagonists  
*D. Carazzi, V. Colotta, F. Varano, L. Trincavelli (Firenze, Italy)*
- PA-065 6-Arylkylamino-1,2-dihydro-2-phenyl-1,2,4-triazolo[4,3-a]quinoxalin-1-ones as A<sub>2A</sub> adenosine receptor antagonists  
*V. Colotta, D. Carazzi, F. Varano, L. Trincavelli (Firenze, Italy)*
- PA-066 Benzosubstituted 2-phenyl-1,2,4-triazolo[4,3-a]quinoxalin-1-ones: Synthesis and binding activity on adenosine receptors  
*V. Colotta, D. Carazzi, F. Varano, L. Trincavelli (Firenze, Italy)*
- PA-067 Conversion of a weak HTS hit to a potent CCR2B (MCP-1) receptor antagonist  
*D.G. Cooper, T.A. Berkhout, E.K. Dadds, J.T. Forbes, J. Gohil, P.H.E. Groo, D.M.B. Hickey, R.J. Ie, M.L. Meeson, K. Moore, M. Stockley (Harlow, UK)*
- PA-068 3-Aryl-1,2,4-triazolo[4,3-a]benzimidazol-4(10H)-ones: selective A<sub>1</sub> adenosine receptor antagonists  
*G. Primofiore, F. Da Settimo, S. Taliani, E. Novellino, G. Greco, A. Lavecchia, L. Trincavelli, C. Martini (Pisa, Italy)*
- PA-069 Indol-3-ylglyoxylylamide derivatives probing the existence of a hydrogen acceptor/donor group in the S1 region of the benzodiazepine receptor binding site  
*G. Primofiore, F. Da Settimo, S. Taliani, A.M. Marini, G. Greco, E. Novellino, L. Trincavelli, C. Martini (Pisa, Italy)*
- PA-070 Conformational studies on a new synthetic MOG glycopeptide antigen able to block demyelinating autoantibodies in multiple sclerosis  
*A.M. D'Urzi, A. Carotenuto, E. Nardi, E. Mastrangelo, A.M. Papini, F. Lolli, F. Pinto, P. Rovero (Salerno, Italy)*
- PA-071 Met-1le-Phe-1-Leu derivatives: full and partial agonists towards formyl peptide receptors of human neutrophils  
*A. Dalpiaz, A. Scaturin, R. Pecoraro, P.A. Borea, K. Varani, S. Trainello, S. Spisani (Ferrara, Italy)*
- PA-072 N-Ureido peptide derivatives as antagonists toward human neutrophil formyl peptide receptor  
*A. Dalpiaz, S. Spisani, A. Scaturin, S. Bertuolo, M.E. Ferretti, S. Trainello, G. Vertuani (Ferrara, Italy)*
- PA-073 β<sub>3</sub>-Adrenergic receptor ligands: synthesis of new derivatives and computational studies  
*L. Kassi, M. De Amici, C. De Micheli, G. Carrea, G. Colombo, G. Ottolina (Milano, Italy)*
- PA-074 Novel 2,4-diaminquinazolinones: synthesis and antagonist activity at α<sub>1</sub>-adrenoceptors  
*D. Giardinà, P. Angei, M. Buccioni, U. Gulini, G. Marucci, C. Melchiorre, A. Leonardi, E. Poggese (Camerino, Italy)*
- PA-075 Novel N-substituted-N<sup>1</sup>-(9-benzyl-2-phenyl-8-azapurin-6-yl)urea derivatives as ligands for A<sub>1</sub> and A<sub>2</sub> adenosine receptors  
*G. Biagi, I. Giorgi, O. Livi, F. Pacchini, V. Scaroni (Pisa, Italy)*
- PA-076 Synthesis, chiral separation and pharmacology of highly potent histamine H<sub>2</sub> receptor agonists related to apronidine  
*C. Götte, J. Kracht, A. Meisler, A. Schuster, S. Bollwein, F. Schalkhauder, G. Bernhard, A. Buschauer (Regensburg, Germany)*

- PA-077 [Nphe1-NCC(1-13)-NH<sub>2</sub>], a novel selective ORL-1 receptor antagonist  
*R. Guerrini, S. Salvadori, G. Calò, D. Regoli (Ferrara, Italy)*
- PA-078 New cyclopienopyridine derivatives. A potent, orally active, selective endothelin ET<sub>A</sub> receptor antagonist  
*T. Hayama, K. Niijama, N. Ohnake, H. Takahashi, N. Kawamishi, T. Yoshizumi, H. Okada, T. Kano, M. Okada, Y. Ishii, M. Nishikibe (Ibaraki, Japan)*
- PA-079 Rapid functional screening at P2Y and dopamine receptors by measuring intracellular calcium with a fluorescence microplate reader  
*B. Höfgen, J.M. Quillan, J. Lehmann, M.U. Kassack (Bonn, Germany)*
- PA-080 Ligands for the common allosteric site of acetylcholine M<sub>2</sub>-receptors: optimization of the hexamethonium compounds  
*U. Holzgrabe, W. Bender, R. Pick, M.H. Botero, E. Balaková, C. Trinkle, K. Mohr (Würzburg, Germany)*
- PA-081 Arginamides with acceptor-substituted guanidino groups: potent neuropeptide Y Y<sub>1</sub> antagonists and putative prodrgugs  
*C. Hütler, J. Kracht, E. Schreiber, G. Bernhard, S. Dove, A. Buschauer (Regensburg, Germany)*
- PA-082 Suramin and suramin analogues as inhibitors of G-protein coupled receptor kinase 2 (GRK2)  
*M.U. Kassack, P. Nickel, T. Hagar, W. Sadde (Bonn, Germany)*
- PA-083 Spiro[1,3-diazacyclopen-1-ene-5,2'-(6'-dimethylindano)]: a new α-adrenergic partial agonist. Two synthetic approaches  
*J.-M. Lacoste, C. Courchay, J.-J. Descombes, T.J. Verbeuren, A. Cordi (Suresnes, France)*
- PA-084 Chiral conformationally restricted analogues of flicocaine as α<sub>2</sub> receptor ligands  
*G. Lentini, F. Corbo, C. Franchini, G. Genchi, A. Scilimati, V. Tortorella (Bari, Italy)*
- PA-085 Synthesis and pharmacology of a novel series of 11-substituted (R)-aporphines  
*T. Linnarsson, N. Mohell, G. Nordvall, L. Unellus, A.M. Johansson (Uppsala, Sweden)*
- PA-086 Design and synthesis of new arachidonic acid derivatives as endocannabinoid uptake inhibitors  
*M.L. Lopez-Rodriguez, I. Lastres-Becker, A. Viso, S. Rodriguez, S. Ortega-Gutiérrez, J.J. Fernandez-Ruiz, J.A. Ramos (Madrid, Spain)*
- PA-087 Synthesis and biology of NBD-derivatives of NECA as new fluorescent probes for adenosine receptors  
*M. Macchia, S. Bertini, V. Di Bussolo, M. Gesi, A. Lucacchini, C. Martini, F. Minnola, F. Salveit, D. Tuscano (Pisa, Italy)*
- PA-088 Synthesis of (+) and (-)-cis-2-[1-(adamantylamino)-methyl]-1-phenylcyclopropane derivative as probes for α<sub>1</sub> and α<sub>2</sub> binding sites  
*A. Marruzzo, O. Pezzavento, F. Vitorio, M.S. Pappalardo, G. Ronisavalle (Catania, Italy)*
- PA-089 Antinarcotic activity of bicyclic dioxolanes  
*M. Giannella, M. Pignati, A. Plergenti, W. Quaglia, S.K. Tayebati (Camerino, Italy)*
- PA-090 1-Aryl-3-[1,5]naphthyridin-4-yl-ureas - the first selective orexin-1 receptor antagonists  
*J. Arch, S. Brough, W. Chan, M. Duxson, M. Hadley, P. Jeffrey, J. Jernan, A. Johns, D. Jones, A. Haynes, R. Porter, D. Smart, N. Upton (Harlow, UK)*
- PA-091 PI-E-based resolution of piperidine analogues of cocaine and biological activity of novel N-methyl-4-(diphenylmethoxy)-3-carbomethoxy-piperidines  
*M. Roberti, R. Rondanin, R. Baruchello, A. Mazzali, F.P. Invidiana, M. Rossi, D. Simoni (Bologna, Italy)*

- PA-092 Synthesis of hexahydro-pyrazolo[2,1-c][1,4]benzoxazine derivatives as conformationally hindered analogues of N-(2-methoxyphenyl)piperazine-based  $\alpha_1$  adrenoceptor ligands  
*G. Romeo, L. Matera, F. Russo, K.P. Minnemam (Catania, Italy)*
- PA-093 Synthesis and inhibitory activity towards human neutrophil elastase of some oximic and hydroxylaminic derivatives  
*A. Rosello, A. Balsano, F. Mannone, E. Orlandini, G. Cercignani (Pisa, Italy)*
- PA-094 Agonist activity at the  $\text{kinin B}_1$  receptor: structural requirements of the central tetrapeptide  
*A. Di Tenza, S. Meini, L. Quartara, C.A. Maggi, F. Formaggio, C. Toniole, P. Rovero (Salerno, Italy)*
- PA-095 Synthesis of 1,2,4-oxadiazole-based peptidomimetics as potential GPHIV/III antagonists  
*M. Soliner, P. Kolenc, P. Vitezic, M. Stegnar (Ljubljana, Slovenia)*
- PA-096 Novel 1,3-dioxolanes as  $\alpha_1$ -adrenergic antagonists  
*C. Sorbi, M. Manicardi, R. Gallesi, P. Angeli, G. Marucci, M. Buccioni, L. Brasili (Modena, Italy)*
- PA-097 Pyrazolo-triazolo-pyrimidine as human  $A_3$  adenosine receptor antagonists: influence of the substituent at N<sup>8</sup> pyrazole nucleus  
*G. Spalluto, P.G. Baraldi, B. Cacciari, R. Romagnoli, S. Moro, E. Leung, K. Varani, S. Gessi, S. Merighi, P.A. Borea (Trieste, Italy)*
- PA-098 Quinolizidine derivatives as ligands for sigma receptors  
*A. Sparatore, F. Novelli, F. Sparatore (Milano, Italy)*
- PA-099 Spiro [3,4-dihydro-6/7-R-1,2,4-benzotriazino-3,4'-1',2'-substituted]piperidines and related compounds as ligands for sigma receptors  
*F. Novelli, F. Sparatore (Genova, Italy)*
- PA-100 Synthesis and pharmacological characterization of [<sup>3</sup>H]-MRE 3008-F20: the first radioligand antagonist for the human  $A_3$  adenosine receptors  
*K. Varani, P.G. Baraldi, B. Cacciari, R. Romagnoli, S. Merighi, S. Gessi, P.A. Borea, E. Leung, G. Spalluto (Ferrara, Italy)*
- PA-101 Tricyclic heteroaromatic system. 5,6-Dihydro-5-oxo-pyrazolo[1,5-c]quinazolines as excitatory amino acid antagonists  
*F. Varano, D. Catarzi, V. Colotta, C. Costagli (Firenze, Italy)*
- PA-102 Synthesis of a set of pyrazolo[1,5-c]quinazolines as novel glycine/NMDA antagonists  
*F. Varano, D. Catarzi, V. Colotta, C. Costagli (Firenze, Italy)*
- PA-103 The discovery of new antagonists of the adenosine  $A_{2A}$  receptor  
*T.R. Webb, N. Melman, D. Lvovskiy, X. Ji, J. Linden, K.A. Jacobson (San Diego, USA)*
- PA-104 Potential existence of the sequence of bovine leukemia virus cell receptor gene in human genome  
*J. Wojcietowski, M. Gawlowicz, D. Koczkodaj, B. Marzec, A. Filip, T. Kubiatowski, J. Gawlowicz (Lubin, Poland)*
- PA-105 Molecular models of receptor-ligand interactions for analysis of dynamics of pharmacological effects in vivo  
*O.Y. Zhuk, V.G. Zinkovskiy, N.Ya. Golovenko, G.A. Tokar, E.A. Stankevich, M.S. Zhuk (Odessa, Ukraine)*

- PA-106 Isodynamic analysis of the minimal effective doses of the exogenic ligands of GABA<sub>A</sub>-receptor complex as a method for the estimation of the mechanisms of their interaction with the CNS mediator system  
*V.G. Zinkovskiy, O.Y. Zhuk, N.Ya. Golovenko, S.A. Slanitev, A.V. Slikskiy (Odessa, Ukraine)*
- PA-107 Synthesis and pharmacological investigation of some novel 1,2-disubstituted-5-[1,2,4]triazoloquinazolones as antihypertensive agents  
*V. Alagarsamy, U.S. Pathak (Sivakasi, India)*
- PA-108 Discovery and structure-activity relationships of novel thrombin receptor antagonists  
*J.C. Barrow, H.G. Seibek, P.G. Nantemmet, T.N. Connolly, M.B. Young, K.R. Rittle, G.F. Lundel, J.L. Pellcoore, K.L. Glass, P.L. Ngo, J.J. Hutchinson, M.J. Breslin, C. Condra, J. Karzewski, A. Stern, R.M. Freidinger, R. Gould (West Point, USA)*
- PA-109 Synthesis of 2-lupinyndoles and 2-phenyl-3-lupinyndoles as platelet anti-aggregating compounds  
*L. Mina, A. Bennicelli, V. Boldo, F. Sparatore, F. (Genova, Italy)*
- PA-110 Studies on new basic NO-donor 1,4-dihydropridines  
*D. Boschi, G. Caron, C. Cena, S. Visentin, A. Di Sileo, R. Frutero, A. Gasco (Torino, Italy)*
- PA-111 Pharmacological characterization of new antiplatelet benzopyranol[4,3-d]pyrimidines  
*E. Barocelli, V. Ballabeni, M. Tognolini, M. Chivavini, S. Bertoni, O. Bruno (Genova, Italy)*
- PA-112 New antithrombotic agents: benzothiofene derivatives as inhibitors of the tPA/PAI-1 complex formation  
*G. De Nanteuil, C. Lila, A. Rupin, T.J. Verbeuren (Suresnes, France)*
- PA-113 Protection of isolated perfused rat heart against ischemia-reperfusion evoked injury by glutapryrone  
*J. Briede, A. Velcna, E. Bisenieks, G. Duburs, J. Uldrickis, J. Polkans (Riga, Latvia)*
- PA-114 The design and synthesis of novel ventricular defibrillating agents  
*M. Erez, O. Levy, D. Varon, E. Keinan (Haifa, Israel)*
- PA-115 Vitamin C and E analogs: design, synthesis, antioxidant activity and protection against ischemia-reperfusion injuries  
*S. Manfredini, S. Vertuani, D. Govoni, B. Manfredi, G. Rossoni, G. Calviello, P. Palozza (Ferrara, Italy)*
- PA-116 New pyrimidine or pyran fused derivatives with inhibitory activity on human platelet aggregation  
*G.C. Grossi, M. Di Braccio, G. Roma, G. Leoncini, M.G. Signorello (Genova, Italy)*
- PA-117 Effects of SDN CS174, a novel 5-HT<sub>1</sub> receptor antagonist, on various experimental models of peripheral circulatory disorder  
*N. Honnata, A. Ogata, C. Takiguchi, H. Takagi, Y. Kamiide, Y. Horikawa, Y. Hayashi, A. Yamaki, A. Mizuno (Gunma-ken, Japan)*
- PA-118 Synthesis and serotonin 2 receptor antagonist activity of 5-aminoalkyl-substituted pyrrolo[3,2-c]azepines and related compounds  
*A. Mizuno, T. Kamel, M. Shibata, N. Inomata, A. Ogata, C. Takiguchi, T. Shimamoto, K. Nakamishi, Y. Hayashi (Osaka, Japan)*
- PA-119 Dihydropyridazinone derivatives as novel antihypertensive agents  
*A.-R. Lee, S.-T. Tang, M.-H. Yen (Taipei, Taiwan)*
- PA-120 4-Nitropyrazole derivatives as new exogenic donors of nitric oxide  
*V. Makarov, N. Grigoriev, M. Schmidtke, V.A. Parshin, V. Granik (Moscow, Russia)*

- PA-121 Design & synthesis of selective PDE5 inhibitors for the treatment of MIED  
S.A. Ballard, K.C. Beaumont, M.E. Bunnage, J.P. Mathias, S.D.A. Street, A. Wood (Sandwich, UK)
- PA-122 Secosteroids as cardenolide analogues  
L.G. Seviliano, F. Tomé, E. Caballero, M. Medarde, A. San Feliciano (Salamanca, Spain)
- PA-123 Peptide to synthetic thrombin inhibitor by pharmacophore based design of a novel series of 4-amtiopyridines  
S.A.M. Méritte, P. Greenidge, C.A. Goodwin, M.F. Scully, J.J. Deedman
- PA-124 Synthesis of 2-oxopyridine, 2,5-dioxopyridine and 2,5-dioxindenoipyridine derivatives as potential cardiotonic agents  
L. Mosci, G.Menozzi, P. Fossa, S. Schenone (Genova, Italy)
- PA-125 Synthesis and biological activities of the 2-piperazine derivative (MS5190), an orally active and highly specific factor Xa inhibitor  
H. Nishida, Y. Miyazaki, T. Mukaihira, F. Saitoh, K. Harada, H. Shimada, N. Mizuno, T. Matsusue, A. Okamoto, Y. Hosaka, M. Matsumoto, M. Kamiya, M. Kurokawa, K. Mizuguchi, S. Ohnishi, H. Mochizuki (Shizuoka, Japan)
- PA-126 Novel thrombin inhibitors with azaphenylalanine scaffold  
A. Obreza, A. Zegza, U. Urieb (Ljubljana, Slovenia)
- PA-127 The discovery of DPC 423, a highly potent, selective and orally bioavailable inhibitor of blood coagulation factor Xa  
D.J. Pinto, M.J. Orwat, S. Wang, J.R. Pruitt, J.M. Fevig, M.L. Quan, Q. Han, E. Amparo, J. Cacciola, L.L. Bostrom, R. Knabb, J.M. Luetgen, M.R. Wright, B.J. Aungst, P.C. Wong, P.Y.S. Lam, R.R. Wexler (Wilmington, USA)
- PA-128 Di-substituted imidazoles as inhibitors of neuronal nitric oxide synthase  
L. Sclerito, V. Sorrenti, F. Guerrero, M.A. Stracusa, C. Di Giacomo, A. Vanella (Catania, Italy)
- PA-129 N-1 Substituted pyrimidin-4-ones: novel, orally active inhibitors of lipoprotein associated phospholipase A<sub>2</sub>  
S.A. Smith, H.F. Boyd, S.C.M. Fell, S.T. Flynn, D.M.B. Hickey, R.J. He, C.A. Leach, C.H. Maqhee, K.J. Millner, K.E. Moores, I.L. Pinto, R. Porter, D.A. Rawlings, I.G. Stanfield, D.G. Tew, C.J. Theobald, C.M. Whitaker (Harlow, UK)
- PA-130 The identification of a potent, water soluble inhibitor of lipoprotein associated phospholipase A<sub>2</sub>  
S.A. Smith, H.F. Boyd, D.M.B. Hickey, R.J. He, C.A. Leach, C.H. Maqhee, K.J. Millner, I.G. Stanfield, C.J. Theobald (Harlow, UK)
- PA-131 New arylpiperazine derivatives as antagonists of the human cloned 5-HT<sub>1</sub> receptor isoforms  
J.L. Sauter, S. Currel, I. Zahradnik, M. Giner, J. Benque-Bestel, J. Miallet, F. Lezonat'h, S. Sestic, R. Fischmeister, M. Langlois (Châtenay-Malabry, France)
- PA-132 The discovery of pseudopeptide antagonists of the atrial natriuretic peptide clearance receptor (Part 1)  
C.L. Dantzman, C.A. Veale, P.D. Edwards, R.T. Jacobs, M. Murphy, R.C. Manger, K.K. Pine, W.E. Palmer, G.B. Steelman, M. Sylvester, V. Alford, E.P. Vacek, S.T. Dock, T.W. Davenport, G.A. Hostetler, D. Aharony, R.A. Bialecki, W.L. Rumsey (Wilmington, USA)
- PA-133 The discovery of pseudopeptide antagonists of the atrial natriuretic peptide clearance receptor (Part 2)  
C.A. Veale, P.D. Edwards, R.T. Jacobs, C.L. Dantzman, M. Murphy, R.C. Manger, K.K. Pine, W.E. Palmer, G.B. Steelman, M. Sylvester, V. Alford, E.P. Vacek, S.T. Dock, T.W. Davenport, G.A. Hostetler, D. Aharony, R.A. Bialecki, W.L. Rumsey (Wilmington, USA)

- PA-134 4-Aryl-7,7-dimethyl-4,6,7,8-tetrahydro-(1H,3H)-quinazoline-2,5-diones: synthesis, enantiomeric separation and pharmacological activity  
M. Yarin, S. Saray, M. Ertan, F.S. Kilic, K. Erol (Ankara, Turkey)
- PA-135 "Consol" solution for heart preservation  
S.Y. Berdyayev, I.L. Zhidkov, A.S. Ivanov, V.A. Kozhevnikov, I.I. Dementeva, G.F. Sheremeteva, V.I. Greiskaya, A.A. Philantencov (Moscow, Russia)
- PA-136 Oxygen consumption and lipolysis on white adipocytes induced by new NPY receptor antagonists  
I. Aldana, M. Aguado, J. Margareto, A. Martí, C. Frigola, B. Muñoz, A. Monge, J.A. Martínez (Pamplona, Spain)
- PA-137 Orally active 2-substituted carboxylic acids isomers of fibrates by 2-bromo esters  
A. Annazzalorso, R. Amoroso, G. Bettini, B. De Filippis (Chieti, Italy)
- PA-138 New 1,4-oxazine derivatives as nitric oxide donors with hypolipidemic and antioxidant properties  
M.C. Chrysellis, I.C. Siskou, E.A. Rekkas, P.N. Kourounakis (Thessaloniki, Greece)
- PA-139 A new series of 3-allylamino-5,6-diphenylpyridazines as ACAT inhibitors  
V. Dai Piaz, M.P. Giovannoni, D. Bartocco, B.M. Kwon, M.K. Kim, Y.K. Kim (Firenze, Italy)
- PA-140 Effect of cerbrocrast on the lipid metabolism in the STZ-DOCA diabetic rats  
I. Briede, G. Duburs (Riga, Latvia)
- PA-141 Design, synthesis and development of selective serotonin agonists for the treatment of obesity  
L.M. Harris, I.T. Crosby (Victoria, Australia)
- PA-142 Structure-activity relationship of a novel chemical family of MTPP inhibitors with lipid-lowering properties  
J. Heeres, L. Meerpoel, L. Backx, R. Hendricks, P. Luyts, L. Van Der Eycken, L. Van Der Veken, B. Vergouwen, P. Roevens, D. De Chaffoy de Courcelles (Beerse, Belgium)
- PA-143 A new HMG-CoA reductase inhibitor, NK-104: QSAR studies  
M. Mitsuikado, M. Suzuki (Funabashi, Japan)
- PA-144 Synthesis of a new series of aminophosphonate compounds with lipoprotein(a) lowering activity  
L.M. Nguyen, H.T. Phan, V.V. Diep, R. Azoulay, S. Florey, E. Niesor, C.L. Bentzen, M.O. Monjovent, R.J. He, S.E. Clarke (Geneva, Switzerland)
- PA-145 New chiral 3-amino-2-propanols as simple, potent inhibitors of cholesterol ester transfer protein  
J.A. Sikorski, R.C. Dunley, M.L. Grappenhans, M.A. Massa, D.A. Mischke, B.L. Parnas, Y.M. Foban, D.D. Honda, M. Zeng, B.R. McKinnis, D.T. Connolly, D.A. Heuvelman, B.J. Withertee, K.C. Glenn, E.S. Krul, N.R. Rath, M.E. Smith (St. Louis, USA)
- PA-146 Synthesis of organosulfon heteroaromatic sulfides as cholesterol level lowering agents  
M. Veveris, K. Rubina, R. Abele, E. Abele, P. Aksenyan, I. Steiska, E. Lukevics (Riga, Latvia)
- PA-147 Synthesis and antistepoporotic activity of new isoflavone derivatives  
E. Arranzi, G. Amari, M. Delcandale, E. Gabiani, M. Ciwelli, M. Glossi, P. Caruso (Parma, Italy)
- PA-148 Synthesis of new bioactive compounds on the basis of betulinic acid  
L. Bahina, O. Fiechter, L. Niganatullina, F. Galin, O.A. Pyasunova, G. Tolstikov (Ufa, Russia)
- PA-149 Transformations of glycyrrhizic acid in relation to the biological activities  
L. Bahina, A.G. Pokrovskiy, G. Tolstikov (Ufa, Russia)
- PA-150 Effects of furocoumarins from the fruits of cow parsnip (*Heracleum L.* species) on the human leukemic cells  
A. Bogucka-Kocka, J. Kocka, T. Krzaczek (Lublin, Poland)

- PA-151 Constituents of euphorbiaceae: isolation and structure elucidation of a digalactosyl-diacylglycerol from *Euphorbia pepelis* L.  
*F. Cateni, J. Zilic, G. Falsone, E. Vitroli* (Trieste, Italy)
- PA-152 Synthesis of N-(N-benzoyl-S\*-phenylalaninyl)-S\*-phenylalaninol benzoate, isolated from *Zeyhera digitalis* roots  
*M. Faccione, D. Ferreira Trevisan* (Londrina, Brazil)
- PA-153 Development of petulinic and quinopimaric acids as a route to new drugs  
*O. Fleklier, L. Nigmatullina, N. Medvedeva, E. Ter' yakova, O. Ashavina, G. Tolstikov* (Ufa, Russia)
- PA-154 New molecules, new ideas; faurine and analogues in treatment strategies of 21<sup>st</sup> century diseases; an overview  
*R.C. Gupta* (Medzaphema, India)
- PA-155 Derivatives of the natural product SB-219383 and synthetic analogues: potent inhibitors of bacterial tyrosyl tRNA synthetase  
*D.W. Hamprecht, J.M. Berge, R.C.B. Copley, D.S. Eggleston, C.S.V. Houge-Frydrych, R.L. Jarvasi, L.M. Mensah, P.J. O'Hanlon, A.J. Pope, S. Rittenhouse* (Harlow, UK)
- PA-156 Isolation from *Barbora verzia* seeds and characterization of 2-phenylethyl glucosinolate, precursor of the potential chemoprotective phenethyl isothiocyanate  
*J. Barilari, R. Iori, L. Lazzari, D. Gueyraud, P. Rollin* (Bologna, Italy)
- PA-157 Studies on aromatic compounds from *Tagetes lucida*  
*A. Maioli, C. Saumino, G. De Martino, F. De Simone, L. Rastrelli, R. Aquino* (Salerno, Italy)
- PA-158 Synthesis and biological activities of novel pyrimidine derivatives of 4,5-dihydro-5,6-dideoxy-L-ascorbic acid  
*S. Ratic-Malic, D. Svedruzic, T. Gazivoda, A. Nagl, A. Hergold-Brandic, J. Balzarini, E. De Clercq, M. Mitas* (Zagreb, Croatia)
- PA-159 Cytotoxic and anti-proliferative effects of prenylated flavones from *Atractopus elasticus*  
*M.S.J. Nascimento, H. Cidade, M.M. Pinto, M. Pedro, F. Cerqueira, A. Kijjira* (Porto, Portugal)
- PA-160 Rational approach in designing, synthesize and biological evaluation of new flavonoid analogues as potential p56<sup>lck</sup> protein tyrosine kinase inhibitors  
*Z. Nikolovska-Coleska, Lj. Sjurkova, K. Dorevski, T. Solmajer* (Skopje, Republic of Macedonia)
- PA-161 Studies toward total synthesis of neocarzinostatin chromophore  
*M.G. Soscia, S.J. Caddick* (Brighton, UK)
- PA-162 An investigation on the antioxidant activity of *Heracleum persicum*  
*E. Souri, P. Sarkhaili* (Teheran, Iran)
- PA-163 Alkoxyacetyl and related derivatives produced by *Streptomyces* sp using liquid brewery waste as culture-medium  
*A. Taddei, C. Caselli* (Caracas, Venezuela)
- PA-164 The action of two sulfur containing carbonates against sulphate reducing bacteria  
*F. Norberto, M.E.M. Araújo, S. Santos, M. Meireles, C. Mendes, A.R. Lino* (Lisboa, Portugal)

- PB-001 Synthesis of 4,5-dihydro-3-(3-pyridinyl)-5-isoxazolecarboxamide derivatives: new potent inhibitors of T-cell blast formation  
*E.J. Freyne, J.I. Andrés, F. Deroose, J. Fernández, D. Petit, J.M. Alonso, G. Boeckx, R. Alvarez, W. Embrechts, J.M. Cid, E. Coesmans, A. Del Cerro, L.M. Font, A. Fontana, L. Iurrino, E. Malesanz, M. Cools, A. Megens, J. Van Wauwe* (Toledo, Spain)
- PB-002 Synthesis and prostaglandin synthase inhibitory activity of new aromatic O-alkyl oxime ethers substituted with methylsulfonamide and methylsulfonyl groups on their aliphatic portion  
*A. Pedramo, E. Orlandini, S. Rapposelli, M. Pinza, C. Milanese, F. Mancini* (Pisa, Italy)
- PB-003 'Omonouche' like compounds as inhibitors of e-Src for the prevention and treatment of osteoporosis  
*R. Beerli, L. Widler, T. Buhl, P. Furet, R. Gamse, M. Kreissel, M. Susa, R. Wolf, J. Green, M. Missbach* (Basel, Switzerland)
- PB-004 2-Carboxy-tetrahydroquinoline derivatives: a novel class of glycine antagonists as potent antihypertensive agents  
*B. Bertani, G. Alvaro, R. Di Fabio, D. Donati, S. Giacobbe, M. Quatrocchi* (Verona, Italy)
- PB-005 New prodrugs from the class of antiinflammatory non-steroidal acids  
*Gh. Bora, L. Beu, E. Colora, M. Bora, M. Ruta, V. Bora* (Cluj-Napoca, Romania)
- PB-006 Spectroscopic studies of some copper (II) complexes with antiinflammatory drugs  
*M. Bora, O. Cozar, I. Bratu, Gh. Bora, V. Bora* (Cluj-Napoca, Romania)
- PB-007 A novel class of potent exceptionally selective, nonpeptidic  $\delta$  opioid receptor agonists  
*W. Brown, Z.-Y. Wei, B. Takasaki, N. Plobeck, D. DeLorme, F. Zhou, H. Young, P. Jones, L. Gawell, R. Schmidt, S.-Y. Yue, C. Walpole, K. Payza, S. St-Onge, M. Labarre, C. Godbout, A. Jakob, J. Butlerworth, A. Kamnassah, J. Ducharme, P.-E. Morin, D. Projean, T.-M. Tu, E. Roberts* (Quebec, Canada)
- PB-008 Synthesis and biological activity of new potential PDE4 inhibitors  
*O. Bruno, N. Arduino, S. Schenone, A. Ranise, F. Bondavalli* (Genova, Italy)
- PB-009 Synthesis of plurisubstituted  $\delta$ -lactones with antiinflammatory activity  
*F. Cateni, G. Falsone, M.M. De Nardo* (Trieste, Italy)
- PB-010 Diphenyl-cycloalkylaminyprazolones, a new class of inhibitors of cyclooxygenase-2  
*N. Cazzola, I. Colella, M. Tomasselli, C. Marani Toro, M. Mabilia, M. Giannangeli, M. Brufani, M. Pinza* (Pomezia, Italy)
- PB-011 5-Imidazol-1-yl-1H-benzimidazoles as dual IL-1/TNF $\alpha$  inhibitors: a central approach in the treatment of osteoarthritis  
*B. Portevin, G. De Nanteuil, A. Fradin, J. Bonnet* (Suresnes, France)
- PB-012 Substituted 4-(2,2-diphenylethyl)pyridine-N-oxides as phosphodiesterase-4 inhibitors: SAR study directed toward the improvement of pharmacokinetic parameters  
*Y. Ducharme, M. Blouin, C. Brideau, C. Chan, N. Charvet, R. Frenette, R.W. Friesen, Y. Girard, P. Hamel, Z. Huang, T. Jones, F. Lalbert, C. Li, P. Masson, M. McAuliffe, D. Nicol-Griffith, J. Silva, J. Yergey, R.N. Young* (Quebec, Canada)
- PB-013 Design and synthesis of potent cyclic pseudopeptide human NK-2 antagonists  
*D. Giannotti, M. Altamura, F. Cantarini, C. Di Bugno, A. Giolitti, S. Ghiliani, A. Guidi, N.J.S. Hamat, R. Nannicini, F. Pasqui, R. Patacchini, E. Perrotta, A.R. Renzetti, C.A. Maggi* (Firenze, Italy)
- PB-014 Phenyl substituted analogs of CDP-840 as phosphodiesterase-4 inhibitors with improved potency, oral activity and metabolic stability  
*Y. Girard, M. Blouin, C. Brideau, C. Chan, N. Charvet, Y. Ducharme, M. Girard, D. Guay, P. Hamel, Z. Huang, D. Nicol-Griffith, T. Jones, F. Lalbert, C. Li, M. McAuliffe, J. Silva, J. Yergey, R.N. Young* (Quebec, Canada)

Session B: Thursday, September 21

- PB-015 Novel fentanyl like analgesics  
C. Cano, P. Goya, N. Jagerovic, R. Giron, C. Goicoechea, M.I. Martin (Madrid, Spain)
- PB-016 Synthesis and inhibition of endotoxin-stimulated proinflammatory cytokines of substituted 2-amino-3-[1,3,4-oxadiazol-5-yl]-pyridines  
A. Heitzheim, D. Albrecht, S. Witt, C. Schütt (Greifswald, Germany)
- PB-017 AWD 12-343, a new orally active PDE 4 inhibitor. Synthesis and comparison with SB 207499, rolipram and AWD 12-281  
N. Höfgen, U. Egerland, H. Poppe, S. Küsters, T. Kronbach, S. Szelenyi (Radebeul, Germany)
- PB-018 Solid phase synthesis of 8-substituted 1,3,8-triazaspiro[4.5]decanones acting as nociceptin receptor ligands  
R. Hohweg, C. Thomsen, I. Petersson, R. Nielsen (Åløv, Denmark)
- PB-019 Discovery of potent and selective small molecule ORL1 receptor antagonist J-113397  
Y. Iwazawa, H. Kawamoto, S. Ozaki, Y. Itoh, M. Miyaji, S. Arai, H. Nakashima, T. Katoh, H. Ohia (Ibaraki, Japan)
- PB-020 Potent and orally active COX-2 inhibitors  
Y. Leblanc, S. Boyce, C. Brideau, C. Chan, N. Chauvet, D. Claveau, R. Gordon, D. Nicoll-Giffith, S. Charbonson, D. Ehler, A. Ford-Hutchinson, M. Gresser, E. Grimm, C.S. Li, D. Riendeau, I. Rodger, P. Roy, D. Visco, Z. Wang, E. Wong, R.N. Young, L. Xu, R. Zamboni, P. Prast (Pointe Claire - Dorval, Quebec, Canada)
- PB-021 The synthesis of peptides with affinity to opioid and neuropeptide FF receptors  
A.W. Lipkowski, A. Misicka, I. Mszczysznska, M. Lachwa, D.B. Carr, M. Yoshikawa, G. Toth (Warsaw, Poland)
- PB-022 Oxidized cyclodextrine as multipharmacophore carrier  
E. Morczak, A. Misicka, M. Lachwa, A.W. Lipkowski (Warsaw, Poland)
- PB-023 New potential opioid analgesics of the 1,3-substituted urea structure  
D. Matosiak, S. Fidecka, L. Antkiewicz-Michalak (Lublin, Poland)
- PB-024 Pharmacological evaluation of 4-substituted 1,5-dialkylpyrazoles, analogues of celecoxib  
G. Menozzi, L. Mosti, L. Merello (Genova, Italy)
- PB-025 N-acetylmethyl-2-acetidinones as human leukocyte elastase inhibitors  
A.B. Santana, E. Valente, J. Neres, R. Moreira, N. Palma, A.P. Grancho, A. Domingos, A. Clemente, J. Iley (Lisboa, Portugal)
- PB-026 Anti-inflammatory effect of thiazoly and benzothiazoly Schiff bases on pig cartilage  
A.M. Panico, V. Cardile, A.A. Geromikaki, B. Gentile, D. Urso (Catania, Italy)
- PB-027 A new series of polycondensed heterocyclic compounds, as potential anti-inflammatory  
A.M. Panico, V. Cardile, A. Santagati, S. Buccieri, F. Garufi (Catania, Italy)
- PB-028 The effect of new CCK-4 analogue on morphine-induced analgesia in rat tail flick test  
T. Proskuryakova, N. Pankratova, O. Petrichenko, V. Shokhonova (Moscow, Russia)
- PB-029 The synthesis of N-[substituted phenyl(glycidyl)carbonyl(sulfonyl)amino]1,2,3,6-tetrahydropyridines as potential antiinflammatory agents  
K.K. Redda, K.J. Yoon, T.L. Wilson, U.C. Onubogu, S. Williams (Tallahassee, USA)
- PC-030 Novel derivatives of tolfenamic acid as improved anti-inflammatory agents  
G. Ziakas, E.A. Reika, A. Gavvas, P.N. Kourounakis (Thessaloniki, Greece)
- PB-031 Synthesis and antiinflammatory activities of some thiosemicarbazides, 1,3,4-oxadiazoles, 1,3,4-thiadiazoles and 1,2,4-triazole-3-thiones  
P. Ertan, S. Gökay, K. Pelin (Çankara, Turkey)
- PB-032 Synthesis and spasmolytic activity of 2-substituted thienopyrimidin-4-one derivatives  
M.A. Samagati, O. Prezzavento, G. Ronisvalle, S. Spanpinato (Catania, Italy)

Session B: Thursday, September 21

- PB-033 Discovery of new lead inhibitors of aldose reductase from docking and structure-based design  
A.M. Ferrari, L. Costantino, G. Rastelli (Modena, Italy)
- PB-034 Evaluation of analgesic and anti-inflammatory activity of novel  $\beta$ -lactam monocyclic compounds  
C. Santirino, B.M. Fusco, M. Buonertta, G. Barone, F. Rocco, G. De Martino (Salerno, Italy)
- PB-035 Development of C5a agonists and antagonists  
R. Sbaglia, D.R. March, L. Proctor, S.M. Taylor, D.P. Fairlie (Queensland, Australia)
- PB-036 Synthesis and biological evaluation of new glycosidase inhibitors  
A. Spadaro, E. Bousquet, F. Vittorio, G. Ronisvalle (Catania, Italy)
- PB-037 COX-2 inhibitors: pyrazolobenzothiazines as conformationally restricted 1,5-dialkylpyrazole derivatives  
O. Tabarrini, V. Cecchetti, S. Sabatini, A. Fravolini (Perugia, Italy)
- PB-038 Synthesis, stereochemical features and prostaglandin biosynthesis inhibition of new 2,6-bis(1,1-dimethylethyl)phenol derivatives  
A. Tait, F. Vezzadini, G. Cannazza, D. Braghini, M. Baraldi, C. Parenti (Modena, Italy)
- PB-039 In-vitro test system for the evaluation of cyclooxygenase-1 (COX-1) and cyclooxygenase-2 (COX-2) inhibitors using bovine aortic coronary endothelial cells (BAEC) by a single high-performance liquid chromatography run with PDA-UV-detection  
G. Dannhardt, H. Ulbrich (Mainz, Germany)
- PB-040 Analgesic properties of benzothiazole/benzimidazole derivatives with acidic groups  
P. Vicini, L. Amoretti, C.A. Maggiali, V. Ballabeni, M. Tognolini, M. Chiavarini, F. Calcina, F. Baronecchi (Parma, Italy)
- PB-041 New diarylmethylpiperazines as selective nonpeptidic  $\delta$  opioid receptor agonists with improved binding affinity, agonist potency and in vitro metabolic stability  
C. Walpole, N. Plobeck, P. Schwarz, D. Dolorme, S.-Y. Yue, W. Brown, K. Payza, S. St-Onge, M. Labarre, A. Kamassah, J. Ducharme, P.-E. Morin, D. Projean, E. Roberts (Montreal, Canada)
- PB-042 Toward new 6/7-substituted tropane analogues: synthesis, identification and in vitro studies  
A.J. Atrakciyan, J. Vepsäläinen, A. Shvetsov, K. Bergström, S. Löfjöhän, L. Tuomisto, P. Männistö, J. Hiltunen (Kuopio, Finland)
- PB-043 2-(1H-Imidazol-4-yl)-cyclopropyl carbamates: new histamine H<sub>2</sub> receptor antagonists: synthesis and structure-activity relationship studies  
S.M. Ali, Y. Rong, C.E. Tedford, S.L. Yates, G. Pawlowski, J. Jiang, K.R. Brunden (Cleveland, USA)
- PB-044 Identification and synthesis of the major metabolite of antiepileptic 10,11-dihydro-10-hydroxyimino-5H-dibenz[b,g]azepine-5-carboxamide  
A. Beltaev, J. Benes, D. Hanzl, A. Parada, M.J. Bonifacio, P. Soares-da-Silva (S. Mamede do Coronado, Portugal)
- PB-045 High-affinity  $\alpha_2$  ligands: synthesis and SAER of N-cyclohexylpiperazine derivatives  
F. Berardi, S. Ferorelli, C. Abate, N.A. Colaburo, R. Calò, R. Perrone, V. Torrella (Bari, Italy)
- PB-046 Synthesis of new dopaminergic alkyl- and arylthioapomorphines  
S. Berényi, S. Gyulai, G. Ruzsnyák (Debrecen, Hungary)
- PB-047 Synthesis of 1-methyl-5-(pyrazol-3- and -5-yl) and 1,2,4-triazol-3- and 5-yl) 1,2,3,6-tetrahydropyridine derivatives and their evaluation as muscarinic receptor ligands  
A. Bortoni, M.R. Del Giudice, C. Mustazza, F. Gatta, S.K. Tayebati, D. Vitall, F. Amenta (Roma, Italy)

- PB-048 New derivatives of a promising serotonergic compound  
*D. Borsini, G. Lax Kovanyi, S.I. Rátzné, G. Németh, L. Poszvácz, G. Simig, G. Lévy, I. Gacsály, É. Schmidt* (Budapest, Hungary)
- PB-049 Synthesis of 2,4-dihydro-1,2,4-benzothiadiazine 1,1-dioxide derivatives as potential allosteric modulators of AMPA receptors  
*D. Braghinoli, G. Cannazza, A. Tai, F. Vezzadini, C. Parenti, G. Pua, M. Baraldi* (Chieti, Italy)
- PB-050 Pyrazolo[1,5-a]pyrimidines: new peripheral benzodiazepine receptor ligands  
*F. Bruni, S. Selleri, C. Costagli, A. Costanzo, G. Ciciani, G. Guerrini, P. Grateri, B. Costa, C. Martini* (Firenze, Italy)
- PB-051 (+)-ST1460: a potent atypical antipsychotic lead. Synthesis, further structure-activity relationships and biological studies  
*S. Britti, G. Campiani, V. Nacci, E. Morelli, A. Cagnoto, M. Goegan, T. Mennini, P. Minetti, D. Mastroianni, N. Scalfetta, B. Gallati, A. Di Cesare, M.A. Stasi, M. Castorina, O. Ghirardi, O. Trini* (Siena, Italy)
- PB-052 Synthesis of a novel TRH-related sulphonanilide peptide  
*L. Brunetti, I. Cacciatore, A. Di Stefano, G. Lucente, G. Luisi, B. Michelotto, G. Orlando, F. Piuma* (Chieti, Italy)
- PB-053 Approaches towards the design of new poly(ADP-ribose)polymerase (PARP) inhibitors  
*E. Camaroni, G. Costantino, M. Marinuzzi, A. Macchiariulo, R. Pellicciari* (Perugia, Italy)
- PB-054 Design, synthesis and pharmacological evaluation of novel clozapine-based antipsychotics  
*B. Capuano, I.T. Crosby, E.J. Lloyd* (Parkville, Australia)
- PB-055 Chemical and pharmacological properties of antihocceptive naphthalene derivatives  
*S. Collina, O. Azzolina, D. Vercesi, M. Nani, A. Barbieri, E. Lanza, C. Tadini, V. Ghislandi* (Pavia, Italy)
- PC-056 Structure-activity studies of stereoisomers of antinociceptive naphthalene derivatives  
*S. Collina, O. Azzolina, D. Vercesi, D. Rossi, A. Barbieri, E. Lanza, V. Ghislandi* (Pavia, Italy)
- PB-057 Search for novel antidepressants through synergy between  $\alpha_2$  adrenoreceptor antagonism and monoamine uptake inhibition  
*A. Cordi, I. Berque-Bestel, T. Persigand, J.-M. Lacombe, A. Newman Tancredi, A. Gobert, M. Brocco, J.-M. Rivet, M.J. Millian* (Suresnes, France)
- PB-058 Development of a receptor interaction model for GABA-B ligands  
*G. Costantino, A. Entrena Guadix, A. Macchiariulo, R. Pellicciari* (Perugia, Italy)
- PB-059 2-Amino-9-alkylpurines - A new class of high affinity ligands for the benzodiazepine receptor  
*K.S. Currie, P. Albaugh* (Branford, USA)
- PB-060 Synthesis of some 1-(2-naphyl)-2-(imidazole-1-yl)ethanone oxime ether derivatives and their anticonvulsant and antimicrobial activities  
*A. Karakurt, S. Dalkara, M. Özalp, S. Özbey, E. Kendi, J.P. Stables* (Ankara, Turkey)
- PB-061 *In vitro* stability, affinity and intrinsic activity studies of potential prodrugs for selective A<sub>1</sub> agonists  
*A. Dalpiaz, C. Biondi, B. Pavan, F. Bortolotti, E. Durini, S. Manfredini* (Ferrara, Italy)
- PB-062 Synthesis and potent anticonvulsant activities of 4-oxo-10H-imidazo[1,2-a]indeno [1,2-e]pyrazin-2-carboxylic acid AMPA antagonists  
*D. Demour, A. Böhme, A. Boireau, M.-W. Debono, A. Genevois-Borella, P. Jimonet, J. Prati, J.C.R. Randle, Y. Ribelli, J.-M. Stutzmann, M. Vuthborgne, S. Mignani* (Viry-sur-Seine, France)

- PB-063 Tricyclic theophylline derivatives  
*A. Dabczynska, C. E. Müller, E. Pekala, S. Rockitt, H. Duedek, J. Karoliak-Wojciechowska, K. Kiec-Kononowicz* (Krakow, Poland)
- PB-064 Adenosine analogs prodrugs: design, synthesis and chemico-physical characterization of N-cyclopentyladenosine (CPA) derivatives  
*S. Manfredini, P.G. Baraldi, E. Durini, F. Bortolotti, A. Scaturin, A. Dalpiaz* (Ferrara, Italy)
- PB-065 New conformationally restrained tricyclic and tetracyclic melatonin analogs: design, synthesis and biological evaluation  
*A. Eleutheriades, M. Vlachou, M. Panoussopoulou, A. Tsonis, M.-T. Teh, D. Sugden* (Athens, Greece)
- PB-066 2-(2-Oxo-1-azacycloalkyl)acetanilides as potential cognitive enhancers  
*O. Farza, K. Polachova, L. Benes* (Brno, Czech Republic)
- PB-067 Design and synthesis of conformationally constrained analogs of L-glutamate and L-aspartate: potential inhibitors/substrates of excitatory amino acid transporters  
*C. Fattorusso, M. De Angelis, S. Ammaroli, G. Campiani, V. Nacci* (Salerno, Italy)
- PB-068 Synthesis and pharmacological characterization of analogues of the GABA uptake inhibitor THPO  
*B. Frølund, E. Falch, J. Perregaard, A. Schousboe, K. Frydenvang, P. Krosgaard-Larsen* (Copenhagen, Denmark)
- PB-069 Diarylmethylpiperidine derivatives as selective glycine uptake inhibitors  
*J. Clark, T.R. Clarkson, S.G. Gibson, I.G. Gilbert, R. Giffilian, C. Howe, D.R. Jaap, D.R. Rae* (Newhouse, Scotland)
- PB-070 Development of 2,3-benzodiazepines and related AMPA receptor antagonists  
*R. Gito, A. Chinniri, M. Zappalà, S. Quararone, F. Bevacqua, A. De Sarro, G. De Sarro* (Messina, Italy)
- PB-071 Synthesis and dopamine receptor binding of fused azaindole derivatives  
*S. Löber, H. Hübner, P. Gmeiner* (Erlangen, Germany)
- PB-072 Synthesis and SAR studies on acetylcholinesterase inhibitors  
*A. Rampa, S. Gobbi, A. Bisi, L. Piazzi, F. Belluti, M. Barolini, V. Andrisano, M. Recanatini, P. Valent* (Bologna, Italy)
- PB-073 7,8-Methylenedioxy-1,2,3,5-tetrahydro-4H-2,3-benzodiazepin-4-ones as novel noncompetitive AMPA receptor antagonists  
*S. Grasso, S. Polimanti, M. Zappalà, A. De Sarro, G. De Sarro* (Messina, Italy)
- PB-074 Selective M<sub>2</sub>-agonists for treatment of pain  
*G. Grewal, M.K. Alessi, C. Bayne, X. Cai, S. Cheah, J. Ellis, J. Eshraghi, R. Fisher, J. Grassi, T.A. Gimmel, W. Hao, B.E. Landgraf, G.M. Latham, B. Levine, H.A. Lounsbury, X. Liu, K.H. Nocka, R.T. Scannell, A. Toy-Palmer, D.W. Wypij, Z. Zhao, H.-X. Zhai, F. Zhuo* (Cambridge, USA)
- PB-075 Design, synthesis, and conformational studies of new templates as ligands at melanocortin 3 and 4 receptors  
*P. Grieco, E. Novellino, G. Greco, D. Weinberg, T. Machelli, V.J. Hruby* (Napoli, Italy)
- PB-076 Pharmacological behavior of two pyrazolo[5,1-c][1,2,4]benzotriazine 5-oxides-3-substituted, as new central BZR ligands  
*A. Costanzo, G. Guerrini, G. Ciciani, F. Bruni, S. Selleri, C. Costagli, P. Malmberg-Aiello, C. Martini, B. Costa* (Firenze, Italy)
- PB-077 Mixed 5-HT<sub>1A</sub> and receptor antagonists as novel antidepressants  
*M. Evans, S. Flynn, L.M. Gaster, L. Gordon, M.S. Hadley, M. Harries, T.D. Heighman, R. King, H.R. Marshall, J.P. Pilloux, J. Powles, G. Price, H. Rami, G. Riley, C. Roberts, C. Scott, R. Stead, J. Watson, S.L. White, P.A. Wyman* (Harlow, UK)

Session B: Thursday, September 21

- PB-078 Potent partial agonists for rat 5-HT<sub>2A</sub> receptors: application of a new structure-activity concept  
*R. Heim, H.H. Pertz, S. Elz (Berlin, Germany)*
- PB-079 Development of a new structure-activity concept for partial 5-HT<sub>2A</sub>-receptor agonists  
*R. Heim, H.H. Pertz, S. Elz (Berlin, Germany)*
- PB-080 Chiral analogues of ketanserin and altanserin: synthesis and potent 5-HT<sub>2A</sub>-receptor antagonism on the rat tail artery  
*T. Klöß, S. Elz (Berlin, Germany)*
- PB-081 Chiral derivatives of pelanserin: synthesis and inverted stereoselectivity at the vascular rat 5-HT<sub>2A</sub>-receptor  
*T. Klöß, S. Elz (Berlin, Germany)*
- PB-082 Tryptic CRF receptor ligands  
*R.F. Horvath, A.J. Hutchison (Branford, USA)*
- PB-083 3-[3-(Piperazin-1-yl)propyl]indoles: agonists for the h5-HT<sub>1A</sub> receptor with high selectivity over the h5-HT<sub>1B</sub> receptor  
*R.A. Jolley, S.C. Hobbs, A.M. MacLeod, A.J. Reeve, F. Stenfield, L.J. Street, M.S. Beer, A. Heald, J.A. Stanton (Harlow, UK)*
- PB-084 Search for novel nootropic drugs among azacrown-ethers with pharmacophore substituents  
*T.L. Karaszewa, N.G. Lukyanenko, S.S. Basok (Odessa, Ukraine)*
- PB-085 Dependence of sulfonamides neurotropic activity from the character a carcass fragment of amine and amino group distance from the carbon carcass  
*L.I. Kasyan, H.T. Zlenko, A.O. Kasyan, I.N. Tarabara (Dnepropetrovsk, Ukraine)*
- PB-086 Diphenyl- and arylidene-substituted imidazo[2,1-b]-thiazoles and ring-enlarged homologs as ligands for the benzodiazepine binding site of GABA<sub>A</sub> receptors  
*K. Kicz-Kononowicz, C.E. Müller, J. Karolak-Wojciechowska, B. Michalak, E. Pekala (Krakow, Poland)*
- PB-087 Novel 2-phenylpurine derivatives as mitochondrial benzodiazepine receptor ligands  
*K. Kandoh, T. Murata, K. Masumoto, K. Ohno, H. Kohayakawa, A. Kita, K. Furukawa (Osaka, Japan)*
- PB-088 Novel, highly potent antioxidants  
*M. Kouyaki, T. Calogeroiou, A. Dési, A. Roditis, A. Kourounakis, K. Tsakizis, P. Kourounakis (Athens, Greece)*
- PB-089 Design, synthesis and biological evaluation of a new series of allosteric enhancers of A<sub>1</sub>-adenosine receptor  
*I. Lamproni, P.G. Baraldi, N. Abdel Zaid, J.C. Shyock (Ferrara, Italy)*
- PB-090 Effect of substituted 6-imidazo[2,1-b]thiazolymethyl-2,3-dimethyl-5-methyl-benzoquinones on Complex I activity  
*A. Leoni, A. Andreani, M. Rambaldi, R. Morici, A. Locatelli, R. Fato, G. Lenaz (Bologna, Italy)*
- PB-091 Synthesis and evaluation of the conformational aspect on the serotonin 5-HT<sub>1A</sub> receptor affinity of a series of "long-chain" arylpiperazines  
*M. Leopoldo, N.A. Colaburo, E. Laciuta, F. Berardi, R. Perrone, V. Tortorella (Bari, Italy)*
- PB-092 A rational design of an intra-molecular hydrogen-bond to increase the CNS penetration of an NK<sub>1</sub> receptor antagonist  
*V. Ashwood, J. Cook, M. Field, D.C. Horwell, C. Julien-Larose, R.A. Lewinthal, M.C. Pritchard, J. Rapahy, L. Singh (Cambridge, UK)*
- PB-093 Affinity of new chiral arylalkylpiperidines towards  $\sigma$  receptor subtypes  
*F. Berardi, N.A. Colaburo, G. Frachiolla, F. Lotidice, R. Perrone, V. Tortorella (Bari, Italy)*

Session B: Thursday, September 21

- PB-094 Pharmacophore model for anticonvulsant of  $\alpha$ -substituted N-benzylamides of  $\gamma$ -hydroxybutyric acid  
*B. Malawska, K. Kulię, J.P. Stables (Krakow, Poland)*
- PB-095 Synthesis and activity of 3-pyridylamine ligands at central nicotinic receptors  
*M. Marzaroni, G. Balboni, P.A. Borea, R. Tomatis (Ferrara, Italy)*
- PB-096 Molecular models of dopaminergic receptors  
*A. Martinelli, G. Ortoe, E. Di Caddo (Pisa, Italy)*
- PB-097 GSK-3 inhibitors: a new therapeutic strategy for neurodegeneration  
*A. Martinez, C. Perez, A. Castro, F.J. Moreno, F. Wandosell (Madrid, Spain)*
- PB-098 Design, synthesis and biological evaluation of new melatonergic compounds  
*C. Jellmann, M. Lefas-Le Gall, M. Mathé-Altamir, J. Andrieux, S. Sicsic, J.P. Nicolas, J. Boutin, P. Delagrèze, C. Bennejean, P. Renard, M. Langlois (Châtenay-Malabry, France)*
- PB-099 Chain and fused carbonyl derivatives of 2-iminimidazolidine with serotonergic activity  
*D. Marosnik, S. Fiedcka, L. Antkiewicz-Michalak (Lublin, Poland)*
- PB-100 Synthesis, biochemical pharmacology, and evaluation of the excitotoxic efficacy of (S)-CPW399, a novel and selective AMPA agonist  
*E. Morelli, A. Rannunno, R. Griffiths, C. Sinclair, H. Reavy, A. Cagnotto, T. Mennini, V. Nacci, G. Campiani (Siena, Italy)*
- PB-101 Twin amides as potential prodrugs of L-DOPA  
*B. Moscatini, G.M. Cingolani, A. Di Stefano, G. Luisi, M. Ricciutelli, F. Claudi (Camerino, Italy)*
- PB-102 Synthesis and cholinesterase activity of phenylcarbamates related to rivaastigmine, a new therapeutic agent for Alzheimer's disease  
*C. Marazza, A. Borroni, M.R. Del Giudice, F. Gatta, A. Meneguez, T. Volpe (Roma, Italy)*
- PB-103 Discovery of novel neuroprotectants, Na<sup>+</sup> and Ca<sup>2+</sup> channel dual blockers with antioxidant activity  
*H. Annoura, K. Nakaniishi, T. Koba, N. Takemoto, S. Imajo, A. Miyajima, Y. Tamura-Horikawa, S. Tamura (Osaka, Japan)*
- PB-104 Synthesis, SAR and biological activities of potent and selective group II metabotropic glutamate receptor agonists, novel 2-amino-fluorobicyclo[3.1.0]hexane-2,6-dicarboxylic acid derivatives  
*A. Nakazato, T. Kumagai, K. Sakagami, R. Yoshikawa, Y. Suzuki, S. Chaki, S. Okuyama (Saitama, Japan)*
- PB-105 Quantitative structure-retention relationships (QSRR) in a group of newly synthesized buspirone analogues  
*A. Nasal, R. Kaliszczan, Z. Chlironczyk (Gdansk, Poland)*
- PB-106 Novel 2,3,4,5-tetrahydro-1H-3-benzazepines and 2,3-dihydro-1H-isindoles with high affinity and selectivity for the dopamine D<sub>2</sub> receptor  
*D.J. Nash, K. Avenell, I. Boyfield, C. Branch, M.S. Hadley, C.N. Johnson, G. Macdonald, G.J. Riley, A.B. Smith, G. Stemp, K.M. Thewlis, A. Yong, M. Wood (Harlow, UK)*
- PB-107 Oximeetheral piperidine derivatives: synthesis and affinity for serotonin and dopamine transporters  
*A. Lapucci, E. Miceli, S. Nencetti, S. Rapposelli, G.C. Demontis, M. Mazzoni (Pisa, Italy)*
- PB-108 Synthesis of a novel series of tryptic indan derivatives as melatonin agonists  
*S. Ohkawa, O. Uchikawa, K. Fukatsu, R. Tokunoh, M. Kawada, K. Matsumoto, Y. Imai, K. Kato, H. Nishikawa, M. Miyamoto (Osaka, Japan)*
- PB-109 New 4-substituted piperidine derivatives as antidepressants  
*A. Toledo, M.C. Pumar, R. Mosquera, A. Inertriv, L. Laboega, A. Orijales (Bilbao, Spain)*

Session B: Thursday, September 21

- PB-110 Synthesis and dopaminergic properties of the two enantiomers of 3-(3-(4-dimethylphenyl)-1-propylpiperidine, a potent and selective dopamine D4 receptor ligand  
B. Maccchia, L. Cerveto, G.C. Demontis, B. Longoni, M. Maccchia, E. Orlandini, C. Papi (Pisa, Italy)
- PB-111 Structure-activity relationship study of asialic acid derivatives against beta amyloid (A $\beta$ )-induced neurotoxicity  
S.S. Jew, C.H. Yoo, D.Y. Lim, H. Kim, I. Mook-Jung, M.W. Jung, H. Choi, Y.H. Jung, H. Kim, H.G. Park (Seoul, Korea)
- PB-112 Synthesis of morpholinomethyl benzamides analogues of the antidepressant moclobemide  
H. Passoa-Makana, P.H.A. Lara, O.C. Astudillo (Santiago, Chile)
- PB-113 New NMDA receptor agonists and antagonists differ only by lipophilicity  
L.B. Potrowsky, P.V. Lishko, O.A. Kryshal, A.Yu. Bepalov (St. Petersburg, Russia)
- PB-114 An enantioselective synthesis and biobehavioral evaluation of 7-fluoro-3-(*p*-fluorophenyl)-2-propylthioananes  
K.R.C. Prakash, M. Tzicinska, K.M. Johnson, A.P. Kozikowsky (Washington, USA)
- PB-115 HPLC analysis of the novel antidepressant reboxetine in human plasma  
M.A. Raggi, G. Casamenti, R. Mandrioli, N. Ghedini, V. Volterra (Bologna, Italy)
- PB-116 Monitoring of plasma levels of clozapine and its metabolites by means of an HPLC method with coulometric detection  
M.A. Raggi, G. Casamenti, R. Mandrioli, C. Sabbioni, V. Volterra (Bologna, Italy)
- PB-117 Effect of combined administration of tryptophan, taurine and branched-chain amino acids on the pool of neuroactive compounds in rat brain structures after ethanol withdrawal  
Y. Razvodovsky, Y.M. Doroshenko (Grodno, Belarus)
- PB-118 New tropinone O-(arylpiperazyl)propyryloximes and their muscarinic activities  
M.J. Rodríguez-Franco, J. Dorronsoro, G. Antequera, A. Martínez, C. Pérez, A. Badía, N.M. Vivas (Madrid, Spain)
- PB-119 1,4-Diazabicyclo[4.3.0]nonan-9-ones and 1,4-diaminopiperazines as new classes of highly potent nootropic drugs  
D. Manetti, C. Ghelardini, A. Bartolini, C. Bellucci, S. Dei, N. Galeotti, F. Gualtieri, M.N. Romanello, S. Scapocchi, E. Teodori (Firenze, Italy)
- PB-120 Bis-tetrahydroacridine derivatives as AChE inhibitors  
L. Savini, A. Gaeta, L. Chasserini, G. Campiani, C. Pellerano (Stena, Italy)
- PB-121 Pirazolol[3,4-b]pyridines as A $_1$  adenosine ligands potentially attractive as neuroprotective agents  
S. Schenone, O. Bruno, A. Ranise, L. Mosci, F. Bordavalli (Genova, Italy)
- PB-122 Synthesis and neurotropic activity of silyl and tetrahydroisoquinolyl derivatives of thiazole  
I. Segal, A. Zabolocka, S. Germane, A. Geronikaki, K. Hatzioopoulos, E. Lukevics (Riga, Latvia)
- PB-123 Different functionalities in dopamine D $_2$ -receptor ligands related to BP 897  
H. Stark, S. Perrachon, A. Mann, F. Garrido, C.G. Wemuth, J.-C. Schwartz, P. Sokoloff (Berlin, Germany)
- PB-124 Highly active and selective histamine H $_2$ -receptor antagonists of the imoproxifan series  
H. Stark, A. Sasse, B. Sadek, X. Ligneau, S. Elz, H. Pertz, P. Luger, C.R. Ganellin, J.-M. Arrang, J.-C. Schwartz, W. Schunack (Berlin, Germany)
- PB-125 Benzophenone derivatives and related compounds as histamine H $_2$ -receptor antagonists  
A. Sasse, X. Ligneau, S. Elz, C.R. Ganellin, J.-M. Arrang, J.-C. Schwartz, W. Schunack, H. Stark (Berlin, Germany)

Session B: Thursday, September 21

- PB-126 Heterocyclic substituted 4-(3-(phenoxy)propyl)-1H-imidazoles as potent histamine H $_2$ -receptor antagonists  
H. Stark, B. Sadek, X. Ligneau, J.-M. Arrang, C.R. Ganellin, J.-C. Schwartz, W. Schunack (Berlin, Germany)
- PB-127 Resolution of ATPA and Thio-ATPA, two potent and selective GluR5 agonists  
T.B. Stensbøl, B. Nielsen, H.S. Jensen, K. Frydenvang, L. Borre, J. Egebjerg, T. Johansen, P. Krosgaard-Larsen (Copenhagen, Denmark)
- PB-128 Y-931, a novel antipsychotic with potential anti-NR1H (NMDA receptor-hypofunction) activity: synthesis and structure-activity relationships of 6Z-[1]benzothieno-[2,3-b][1,5]benzodiazepines  
H. Tanaka, K. Kimura, H. Horuchi, T. Kohara, M. Fujimura, K. Hashimoto, H. Yasumatsu, T. Morimoto, K. Yamagami, M. Arita (Saitama, Japan)
- PB-129 Synthesis of completely open-chain analogs of MK-801 as potent NMDA-receptor linked ion channel blockers  
S. Trachenko, S. Bachurin, L. Petrova, A. Ustinov, A. Proshin, N. Zefirov (Chemogolovka, Russia)
- PB-130 Variation neurosecretory phenomenon of normal white rats and rats treated with mixture lidocaine+adrenaline in course of sexual cycle  
J. Tomlin, V. Ivanovski, B. Lovic, D. Lovic, B. Stamenkovic, S. Glogovac, B. Stojkovic, R. Pavlovic (Nis, Yugoslavia)
- PB-131 New acetylcholinesterase inhibitors: N-benzylpiperidine  $\omega$ -amidated dicarboxylic amino acid derivatives  
S. Conde, M.-P. Torres-Candela, C. Pérez, A. Castro, A. Martínez (Madrid, Spain)
- PB-132 Synthesis of a novel series of benzocycloalkene derivatives as melatonin agonists  
O. Uchikawa, K. Fukatsu, M. Kawada, T. Yamano, M. Yamashita, K. Kato, M. Miyamoto, S. Ohkawa (Osaka, Japan)
- PB-133 Synthesis of the pyrazolotriazinone derivative AWD 34-022 and its pharmacological profile  
T. Arnold, H.-J. Lankau, A. Rosstock, K. Uweyerth (Radebeul, Germany)
- PB-134 New N, N'-disubstituted piperazines as serotonine and dopamine ligands  
E. Estrada, J.C. González, L. Santana, E. Uriarte, Y. Fall, C. Terán, I. Loza (Santiago de Compostela, Spain)
- PB-135 Enone prodrugs of hydroxylated aminotetrals: PD148903, derivatives and analogs  
B.J. Venhita, H.V. Wikström, D. Wustrow, L. Meltzer, L.D. Wise, S. Johnson, D. Dijkstra (Groningen, The Netherlands)
- PB-136 Synthesis of polyallelic pyrrolopyridines as melatonin receptor ligands  
H. Van De Poel, P. Renard, C. Bennejean, P. Delagrèange, J.A. Boutin, J.P. Nicolas, G. Guillaumet, M.-C. Viand (Tours, France)
- PB-137 New prolyl oligopeptidase inhibitors  
E.A.A. Wallén, J.A.M. Christians, M. Forsberg, P.T. Männistö, J. Gyther (Kuopio, Finland)
- PB-138 Synthesis and stability of dopamine prodrugs  
S. Zanarone, A. Sala, R. Ippolito, M.G. Rimoli, E. Abigente, P. de Caprariis, G. Boatto (Napoli, Italy)
- PB-139 Organosilicon polyaddition polymers for medicine  
S. Nannshyan, E. Alexeeva, A. Arntsev (Moscow, Russia)
- PB-140 Theoretical studies and synthesis of N-(1,2,5,7-dithiadiazolan-6-yliden)cyanamide. A new immunostimulant compound  
E. Angeles, I. Meneoni, G. Ordoñez, A. Romero, R. Martínez, R. López-Castañares (Mexico)

Session B: Thursday, September 21

- PB-141 Resolution of 2-arylpriopionic acid esters using lipase enzyme  
*B. Berk, H. Akçün (Ankara, Turkey)*
- PB-142 Stereochemical characterisation of potential cocaine antagonists by enantioselective HPLC and circular dichroism detection  
*C. Bertucci, V. Andrisano, R. Gotti, M. Roberti, D. Simoni (Bologna, Italy)*
- PB-143 Fullerene in medicinal chemistry  
*S. Bossi, T. Da Ros, M. Bergamini, V. Tomberli, B. Batti, C. Cusan, F. Pellarini, G. Spalluto, M. Prato (Trieste, Italy)*
- PB-144 Design and synthesis of tricyclic adenosine analogues  
*D. Camp, R.J. Quinn, U. Wernmuth (Melbourne, Australia)*
- PB-145 Characterisation of novel CYP2C9 and CYP2D6 substrates for fluorescence P450 assays  
*R. Elliott, R. Bamba, J.C. Bloomer, R.J. Cheney, S.E. Clarke, C. Leach (Harlow, UK)*
- PB-146 Chemistry, pharmacology and clinical studies of novel antidepressant peptides  
*J.J. Hawka, H. Abajian, G. Nicolau, J.P. Feighner (Suffern, USA)*
- PB-147 Resolution of racemic bupropfen by using two-component resolving agent  
*X. Hu, G. Li, J. Wen, J. Li, Q. Hu, X. Gong, J. Shu (Wuhan, China)*
- PB-148 Pharmaxpert: knowledge-based computer system for discovery of new drugs  
*A. Lagaraine, V. Porokov, D. Filimonov (Moscow, Russia)*
- PB-149 SAR by crystallography: a new approach combining screening and rational drug design. Application to the discovery of nanomolar Src SH2 binders  
*D. Lesuisse, P. Deprez, D. Benard, P. Broto, G. Deletre, V. Jean-Baptiste, J.P. Marquette, E. Sanhbi, B. Schoot, E. Mandine, G. Lange (Romainville, France)*
- PB-150 Peptide analogues of a Epstein-Barr virus LMP2-derived epitope  
*M. Marzanti, M. Bazzano, S. Salvadori, R. Guerrini, R. Gavioi, F. Micheletti, R. Tomatis (Ferrara, Italy)*
- PB-151 New solid supported reagents (SSRS) for amines acylation  
*E. Parricci, M. Botta, F. Corelli, M. Renuzzi (Stena, Italy)*
- PB-152 Automated solid phase synthesis of 3-hydroxy methyl and 3-carbamyl methyl isoxazoles  
*M. Qazi, W. Barbaglia, A. Ezhaya, E. Cereda (Milano, Italy)*
- PB-153 Correlations between fundamental characteristics of the "organism-drug" system  
*S.A. Slaniniv, V.G. Zinkovskiy, N.Y. Golovenko, O.V. Zhuk, S.I. Zchukin (Odessa, Ukraine)*
- PB-154 Automated, high throughput analysis of dissolution samples by HPLC  
*M.E. Swartz, P.M. Young, K. Johnson, P.A. Fowler (Milliford, USA)*
- PB-155 Synthesis of nucleoside 3'-O-(S-p-nitro-phenyl methanephosphonodithioate)S and O-(Se-p-nitrophenyl methanephosphonodithioate)S  
*L.A. Wozniak, A. Chworos, W.J. Stec (Lodz, Poland)*
- PB-156 Methanephosphonamidothioate approach to stereocontrolled chemical ligations:  
*L.A. Wozniak, J. Pyzowski, W.J. Stec (Lodz, Poland)*

Session C: Friday, September 22

- PC-003 Novel efficient methods for synthesis of adducts of oligonucleotides with highly hydrophobic molecules  
*S.I. Antsyповich, S.Yu. Andreev, T.S. Oreiskaya, Z.A. Shabarova (Moscow, Russia)*
- PC-004 Study of the distribution in mouse of furocoumarins and an angelicin isoster  
*R. Berruaguiua, F. Baccichetti, A. Giulio (Padova, Italy)*
- PC-005 Synthesis, antifibrotic activity and pharmacophore fitting of new derivatives of telitidine  
*M. Bivra, R. Fioravanti, G.C. Porretta, G. Steller, D. Deidda, G. Lampis, R. Pompei, A.Tafi, F. Manenti (Roma, Italy)*
- PC-006 Spectroscopic investigation of the metal - ligand coordination in some diclofenac complexes  
*Gh. Bora, I. Bratu, O. Cozar, M. Bora, V. Bora (Cluj-Napoca, Romania)*
- PC-007 Unexpected *in vivo* gastroprokinetic activity of benzole ester derivatives of 4-hydroxymethylpiperidines  
*J.-P.R. Bosmans, A.L. Meulermans, H.H. Boheis, C.J. Love, M.A. De Cleyn, M.G. Verdonck, E.C. Ghoos, M. Jutzak, J.A. Schuurkes (Beerse, Belgium)*
- PC-008 Conformational analysis of a new series of indole derivatives ligand of the serotonin receptors  
*C. Saturnino, A. Capasso, M. Bionerba, G. Barone, G. De Martino (Salerno, Italy)*
- PC-009 New activators of BK<sub>Ca</sub> potassium channels  
*G. Biagi, V. Calderone, I. Giorgi, O. Livi, C. Manera, V. Scaroni, B. Baragatti, E. Martinotti (Pisa, Italy)*
- PC-010 Synthesis of some Mannich N-bases of triazoloquinolines as pharmacologically active compounds  
*M.G. Ferlin, G. Chiareloto (Padova, Italy)*
- PC-011 Synthesis and *in vitro* antimycobacterial activity of sulconazole analogs  
*R. Fioravanti, M. Biava, G.C. Porretta, D. Deidda, C. Mantili, R. Pompei (Roma, Italy)*
- PC-012 Liquid chromatographic (HPLC) determination with fluorescence detection of B<sub>6</sub> vitamins and riboflavin in multivitamin preparations and milk  
*M.G. Gioia, R. Gatti (Bologna, Italy)*
- PC-013 Reversible carnitine palmitoyltransferase inhibitors with antidiabetic activity.  
**2. Aminocarnitine derivatives**  
*A. Arduini, G. Calvisi, R. Catini, P. Chiodi, F. De Angelis, E. De Fusco, N. Dell'Uomo, G. Gallo, F. Giannesi, D. Meloni, P. Pessoto, E. Tassoni, M.O. Trini (Roma, Italy)*
- PC-014 Synthesis and pharmacophore generation of new pyridazine derivatives with affinity towards  $\alpha_1\alpha_2$  adrenoceptors  
*G. Strappaghetti, S. Corsano, R. Barbaro, G. Giannaccini, L. Belli, M. Botta, F. Manetti, L. Maccari (Stena, Italy)*
- PC-015 An oxorhenium-RGD derivative complex for radiopharmaceutical application  
*V. Kostopoulos, M. Petecanov, E. Mikros, C.I. Stassinopoulou, A.D. Varvarigou, S.C. Archimandritis (Athens, Greece)*
- PC-016 Synthesis and characterization of thiolethioside derivatives  
*A. Sacchi, S. Laneri, M. Gallicelli, M. Iadanza, E. Abignente, P. Colombo, P. Santi (Napoli, Italy)*
- PC-017 Substrates and inhibitors of human tissue kallikrein containing unconventional amino acids  
*V. Santagada, G. Caliendo, E. Pertsutti, F. Florino, B. Severino, L. Juliano (Napoli, Italy)*
- PC-018 1,8-Naphthyridine derivatives: potent and selective A<sub>1</sub> adenosine antagonists  
*P.L. Ferrarini, C. Mori, C. Manera, G. Saccomanni, S. Simi, L. Belli, G. Giannaccini, A. Lucacchini (Pisa, Italy)*

- PC-019 Synthesis and evaluation of adenosine transporter inhibitors  
*H. Takai, S. Fujihara, Y. Okamura, H. Nonaka, H. Kase, K. Yao, A. Karasawa* (Shizuoka-ken, Japan)
- PC-020 Reversible carnitine palmitoyltransferase inhibitors with antidiabetic activity. I. Broad chemical diversity  
*L. Almonre, A. Arduini, G. Galvisi, R. Calini, P. Chiodi, F. De Angelis, E. De Fusco, N. Dell'Uomo, F. Giannessi, F. Giorgi, I. Lustrati, M. Mabilia, M. Marzi, P. Minetti, S. Muck, P. Pessoto, E. Tassoni, M.O. Tinti* (Roma, Italy)
- PC-021 Bifunctional complexes of rhenium (I) and technetium (I) containing chemotactic sequences: chemistry and biological studies  
*A. Lazaro, A. Dalpiaz, A. Scaturin, A. Marchi, G. Verniani* (Ferrara, Italy)
- PC-022 Synthesis of new class of platinum(II) complexes with captopril as a potential antitumor agents  
*M. Aleksić, D. Agbaba, D. Mlojkovic-Opsenica, Z. Tesic, S. Radulovic* (Belgrade, Yugoslavia)
- PC-023 Alkylating agents from sugars. Glycosyl glycerols as chlorambucil carrier systems  
*F. Alcaldia, J.M. Vega-Pérez, J.L. Candela, I. Romero, E. Blanco, F. Iglesias-Guerra* (Sevilla, Spain)
- PC-024 A general enantioselective synthesis of C<sub>2</sub>-symmetric 1,2-ethane-bis-sulfoxides  
*N. Khair, F. Alcaldia, C.S. Araújo, I. Fernández* (Sevilla, Spain)
- PC-025 Pyrazolo[3,4-*b*]acridine-5-carboxamides: a new class of potential antitumor agents with excellent antiproliferative activity  
*I. Antonini, A. Magnano, P. Polucci, S. Marrelli* (Camerino, Italy)
- PC-026 Cytotoxic activity of silyl and germyl substituted 4,4-dioxo-3a,6a-dihydrothieno-[2,3-d]isoxazolines-2  
*P. Aisepyan, O. Pudova, I. Shestakova, E. Lukevics* (Riga, Latvia)
- PC-027 *Ab initio* study of the structure of N-diphenylmethyl-2-propanamide  
*G. Barone, C. Saturnino, G. De Martino, G. La Manna, D. Duca* (Salerno, Italy)
- PC-028 Trimeric naphthoquinones as antiviral agents  
*D.G. Bourke, J.A.V. Coates, M.P. Collis, I.T. Crosby, P.J. de Bruyn, P.L.C. Keep, M.L. Rose, A.D. Robertson* (Parkville, Australia)
- PC-029 Phenyl sulfur mustard derivatives of distamycin A  
*I. Beria, M. Caldarrelli, L. Capolongo, P. Cozzi, C. Geroni, S. Mazzini, E. Ragg* (Milano, Italy)
- PC-030 Interaction of cytotoxic distamycin derivatives with plasmidic DNA  
*I. Beria, M. Caldarrelli, P. Cozzi, C. Geroni, A. Ciria, S. Mazzini, E. Ragg* (Milano, Italy)
- PC-031 Arylazoamines endowed with antiproliferative activity  
*V. Bojdo, C. Canu Bojdo, F. Sparatore, S. Doratotto, D. Deljano, P. La Colla* (Genova, Italy)
- PC-032 Antiproliferative activities of variously substituted 2-phenyl- and 2-benzyl-benzimidazoles  
*V. Bojdo, L. Mina, F. Sparatore, G. Paglietti, S. Doratotto, M.G. Setzu, D. Deljano, P. La Colla* (Genova, Italy)
- PC-033 A new class of synthetic quinone compounds acting as antiproliferative agents  
*A. Bolognese, T. Di Meo, M. Manfra, G. Corrales, O. Mazzoni, E. Novellino, G. Brunetti, L. Sanna, D. Deljano, P. La Colla* (Napoli, Italy)
- PC-034 2,3-Dihydro-1H-imidazo[1,2-*b*]pyridazole derivatives with potential antiproliferative activity  
*S. Schenone, O. Bruno, A. Ranise, F. Bondavalli* (Genova, Italy)
- PC-035 Oxophosphonates - A new class of potent matrix metalloproteinase inhibitors  
*R. Reich, C.J. Salomon, Y. Katz, W. Chen, A. Goldblum, E. Breuer* (Jerusalem, Israel)

- PC-036 Phosphorylated analogs of 4-hydroxytamoxifen  
*T. Calogeropoulos, M. Koufaki, A. Detsi, I. Fichtner, G. Eisenbrand, D. Syriani, M.N. Alexis, H.R. Hendricks, A. Makriyannis* (Athens, Greece)
- PC-037 QSAR of bispyridinium compounds: antiproliferative agents via inhibition of choline kinase  
*J. Campos, M.C. Núñez, A. Emtréna, V. Rodríguez, M.A. Gallo, A. Espinosa* (Granada, Spain)
- PC-038 QSAR/QSPR correlations of novel anticancer drugs: π-electron-delocalized lipophilic biscalons  
*J. Campos, M.C. Núñez, R.M. Sánchez, A. Conejo, M.A. Gallo, A. Espinosa* (Granada, Spain)
- PC-039 Cytotoxic diterpenylaphthololtriquinones. Structural modifications at the terpenic moiety  
*M.A. Castro, J.M. Miguel del Corral, M. Gordaliza, P. Chamorro, M.D. García-Grávalos, A. San Feliciano* (Salamanca, Spain)
- PC-040 Synthesis and preliminary *in vitro* anticancer activity of new uracil derivatives  
*M.T. Cocco, C. Congia, V. Omis, R. Piras* (Cagliari, Italy)
- PC-041 Synthesis and cytotoxic activity of benzodioxinic derivatives  
*S. Clavier, G. Corder, D.H. Caignard, P. Renard, A. Pierré, G. Allassi* (Orléans, France)
- PC-042 Benzoxoquinolone and cyclobuten naphthoquinone derivatives: synthesis and antiproliferative activity  
*M.V. Diurno, P. Campiglia, G. Corrales, G. Gatta, I. Gomez-Monterrey, O. Mazzoni, L. Sanna, M.G. Setzu, I. Serra, D. Deljano, S. Doratotto, P. La Colla* (Napoli, Italy)
- PC-043 New tetracyclic frameworks with potential antitumor interest  
*E. Estrada, J.C. Gonzales, J. Lobo-Antunes, E. Quezada, L. Santana, E. Uriarte* (Santiago de Compostela, Spain)
- PC-044 A new prototype of symmetrical bis(5-fluorouracil-*O*-*N*-acetyl) with two amide bonds  
*M.A. Gallo, J.F. Domínguez, J.A. Marchal, J. Prados, J. Campos, A. Aránega, A. Espinosa* (Granada, Spain)
- PC-045 Synthesis and antitumor activity of 3-alkoxy analogues of flavone-8-acetic acid  
*S. Gobbi, A. Rampà, A. Bisi, F. Belluti, P. Valenti, A. Caputo, M. Carrara* (Bologna, Italy)
- PC-046 Synthesis and biological evaluation of cytotoxic monoterpenyl-naphthoquinones  
*M. Gordaliza, M.A. Castro, J.M. Miguel del Corral, M.L. Martín-Martín, M.D. García-Grávalos, A. San Feliciano* (Salamanca, Spain)
- PC-047 Synthesis and evaluation of novel steroidal oxime inhibitors of P450 17 (17 $\alpha$ -hydroxylase / C17-20-lyase) and 5  $\alpha$ -reductase type I and 2  
*S. Heider, M. Hecker, P.B. Ehrner, W. Reichert, J. Jose, R.W. Hartmann* (Saarbrücken, Germany)
- PC-048 Synthesis and cytostatic effects of bis-(alpha-benzyl)-azatyrosylamides on human cancer cell lines  
*M.-K. Hu, C.-F. Lu* (Taipei, Taiwan)
- PC-049 Synthesis and *in vitro* cytotoxicity of hexacyclic camptothecin analogues  
*S.S. Jew, H.J. Kim, M.G. Kim, E.Y. Roh, J.K. Kim, J.H. Lee, H. Lee, H.G. Park* (Seoul, Korea)
- PC-050 Discovery and optimization of chromanes as new potent P21-Ras competitive farnesyltransferase inhibitors  
*P. Jhoner, B. Baudouin, A. Lebrun, J.F. Sabuco, Y. El-Ahmad, A. Genevois, F. Clerc, O. Angoullant, J.D. Guillon, A. Laoui, S. Pickett, S. Maignan, J.P. Guilloleau, J.F. Riou, Y. Lellèvre, L. Debussche, A. Commenge, N. Dereu* (Viry-sur-Seine, France)
- PC-051 *N*-substituted 3-aryl-2-quinolones: synthesis and putative use in cancer chemotherapy  
*B. Joseph, F. Darro, R. Kiss, B. Lesur, A. Frydman, G. Guillaumet* (Orléans, France)

Session C: Friday, September 22

- PC-052 **Hologram QSAR analysis of propafenone-type modulators of multi-drug resistance**  
D. Kaiser, P. Chiba, G. Ecker (Wien, Austria)
- PC-053 **Levan of *Zymomonas Mobilis* - the nonspecific immunomodulator of cancer**  
I. Vina, A. Karskewich, A. Zhilevica, R. Treimane, M. Bekers (Riga, Latvia)
- PC-054 **Synthesis and properties of glycoconjugates, containing two anticancer agents - L-asparaginase and polyfructose levan**  
A. Karskewich, I. Vina (Riga, Latvia)
- PC-055 **Pyrazolo[3,4-b]pyridines: potent inhibitors of cyclin-dependent kinases**  
R.N. Misra, R. Barotsky, I. Bursuker, C. Chang, K.A. Kellar, S.D. Kimball, J.G. Mulherson, D.B. Rawlins, J.S. Sack, W. Shan, J. Tokarski, K. Webster, H. Xiao (Princeton, USA)
- PC-056 **Synthesis, conformational analysis and cytotoxic activity of some new pyranolo[3,2-b]thioxanthen-6-ones and pyranolo[2,3-c]thioxanthen-7-ones**  
I.K. Kostakis, N. Pouli, P. Marakos, E. Mikros, A.L. Skaltsounis, S. Leonce, Gh. Atassi, P. Renard (Athens, Greece)
- PC-057 **The design and synthesis of a pyrazolo[3,4-e]pyridine C-nucleoside as potential antitumor agent**  
V. Kourafalou, P. Marakos, N. Pouli, L.B. Townsend (Athens, Greece)
- PC-058 **7H-Pyrido[3,2-c]imidazo[1,2-e]pyrimidin-2(3H)-one a new tricyclic DNA-interactive ring system**  
A. Lauria, P. Diana, P. Barreja, G. Datolo, G. Cirincione, A.M. Almerico (Palermo, Italy)
- PC-059 **Synthesis and potential coantitumor activity of imidazo[2,1-b]thiazole guanthyldrazones**  
A. Locatelli, R. Morigi, A. Leoni, M. Rambaldi, M. Recanatini, A. Andreani, V. Garattini (Bologna, Italy)
- PC-060 **Synthesis of R116010, a retinoic acid (RA) metabolism inhibitor with antitumor effects**  
D. Mabire, M. Venet, G. Sanz, H. Pognet, W. Wouters, J. Van Wauve (Val de Reuil, France)
- PC-061 **Ceramide analogues as a new strategy for anticancer drug development**  
M. Macchia, S. Barontini, S. Bertini, R. Danesi, M. Del Tacca, V. Di Bussolo, S. Fogli, E. Giovannetti, E. Grossi, F. Minutolo (Pisa, Italy)
- PC-062 **Arylopyrrole-acylhydroxamates: a new class of histone deacetylase inhibitors**  
A. Mai, G. Sbardella, S. Massa, R. Ragno, G. Brosch (Roma, Italy)
- PC-063 **Design, synthesis and activity of a new class of highly selective human mitochondrial thymidine kinase inhibitors**  
S. Manfredini, P.G. Baraldi, E. Durini, L. Porcu, A. Angusti, N. Solaroli, E. De Clercq, A. Karlsson, J. Balzarini (Ferrara, Italy)
- PC-064 **Design, synthesis and activity of phosphono-acetic diastereoisomers of ribofuranosyl nucleoside diphosphates as potential RNK inhibitors**  
S. Manfredini, P.G. Baraldi, E. Durini, L. Porcu, S. Veruani, N. Solaroli, A. Verrì, S. Spadari, F. Focher, E. De Clercq, J. Balzarini (Ferrara, Italy)
- PC-065 **The synthesis and pharmacological evaluation of a new potent danonycinone derivative**  
N. Alligianis, N. Pouli, P. Marakos, A.L. Skaltsounis, S. Mifaki, H. Prasinis (Athens, Greece)
- PC-066 **Synthesis of new indolo[3,2-c]1,8-naphthyridine derivatives as antiproliferative agents**  
A. Da Settimo, G. Primofiore, F. Simorini, A.M. Marini, F. Da Settimo, L. Dalla Via, O. Gira, S. Marziani Magno (Padova, Italy)
- PC-067 **Naphthyl combretastatin-A-4 analogues**  
A.B.S. Maya, B. Del Rey, E. Caballero, M.D. Garcia-Grávalos, M. Medarde, A. San Feliciano (Salamanca, Spain)

Session C: Friday, September 22

- PC-068 **Novel 7-imino- and oximinoethylenecamptothecins with potent in vitro and in vivo antitumor activity**  
S. Dallavalle, B. Bissotti, A. Ferrari, L. Merlini, G. Gallo, M. Marzi, S. Penco, C. Pisano, N. Carenni, P. Perego, M. De Cesare, G. Patesi, F. Zunino (Milano, Italy)
- PC-069 **Synthesis and antitumor activity of 4-hydroperoxy derivatives of flosfamide and its bromo analogues**  
K. Misirca, S. Szymanowicz, H. Kusnierczyk, A. Opoliski, J. Wietrzyk, A. Siwinska (Łódź, Poland)
- PC-070 **Indolylnethylene- and imidazo[2,1-b]thiazolylnethylene-2-indolinones. A new class of CDK1/cyclin B inhibitors**  
R. Morigi, A. Locatelli, A. Leoni, M. Rambaldi, A. Andreani, M. Recanatini, A. Cavalli, M. Garnier (Bologna, Italy)
- PC-071 **New steroid sulfatase inhibitors**  
P. Mussbacher, A. Billich (Vienna, Austria)
- PC-072 **Synthesis of enantiomerically pure 1-( $\alpha$ -benzofuran-2-yl)arylmethyl]1,2,4-triazoles, antifungal and antitumor active agents**  
A. Paladino, F. Messina, M. Botta, F. Corelli (Siena, Italy)
- PC-073 **New antitumor agents derived from pyrido[2,3-d]pyrimidines**  
J.A. Palop, C. Sanmartín, M.V. Dominguez, M. Font, M.E. Ardaiz, M. Echeverría, B. Mendivil, A. Martín, J. García-Fonollas, I. Okroujnov, E. Dudich (Pamplona, Spain)
- PC-074 **Novel combretastatin analogues with two trimethoxyphenyl rings**  
R. Pelaez, L. Lamière de Clairac, M. Medarde (Salamanca, Spain)
- PC-075 **Conformationally restricted analogues of combretastatones**  
J.E. Hernandez, R. Pelaez, L. Lamière de Clairac, M. Medarde (Salamanca, Spain)
- PC-076 **Nonsteroidal inhibitors of 5- $\alpha$ -reductase. Synthesis of N-substituted piperidine-4-(benzylidene-4-carboxylic acids) and evaluation of type 1 and 2 isozyme inhibition**  
F. Picard, R.W. Hartmann (Saarbrücken, Germany)
- PC-077 **Dioxygenated xanthenones: effect on human cancer cell lines and human T-lymphocyte proliferation**  
M.M.M. Pinto, M.S.J. Nascimento, M. Pinto, E. Sousa, M. Pedro, F. Cerqueira (Porto, Portugal)
- PC-078 **Quinoxalines analogues-omologues of classical antifolates**  
S. Piras, M. Loriga, G. Paglietti (Sassari, Italy)
- PC-079 **Preparation and cytotoxic activity of some new rhodomyicine derivatives bearing modifications in the sugar part**  
N. Alligianis, N. Pouli, P. Marakos, A.L. Skaltsounis, S. Mifaki, J.C. Florent, E.M. Perchellet, B.J. Speisfage, C.J. McIlvain, J.P. Perchellet (Athens, Greece)
- PC-080 **Synthesis and antitumor activity of benzimidazolium salts**  
O. Pudova, P. Arsenyan, I. Shestakova, E. Lukevics (Riga, Latvia)
- PC-081 **Platinum(II) and palladium(II) complexes of usnic acid condensation products and their cytostatic activity**  
S. Radulovic, Z. Juranic, M. Mandic, D. Stadic, K. Andjelkovic, Z. Tesic (Belgrade, Yugoslavia)
- PC-082 **A new class of potent apoptotic agents (PBOX) based on an oxazepine scaffold: identification of potential antitumor agents**  
A. Ramunno, C. Fattorusso, D. Zisierer, C. Williams, M. Mc Gee, V. Nacci, G. Campiani (Salerno, Italy)

- PC-083 Benzoyl nitrogen mustard derivatives of pyrazole analogues of distamycin A: synthesis and antileukemic activity  
*R. Romagnoli, P.G. Baraldi, B. Cacceari, G. Spalluto, I. Beria, P. Cozzi, C. Geroni, N. Mongelli (Ferrara, Italy)*
- PC-084 SAR analysis of the cellular influx and cytotoxicity of aminopterin analogs with a nonpolyglutamatable side chain  
*A. Rosovsky, J.E. Wright, C.M. Vaidya, R.A. Fotsch (Boston, USA)*
- PC-085 Synthesis and cytotoxicity of organosilicon derivatives of pyridine and quinoline sulfides and antidioxines  
*K. Rubina, E. Abele, R. Arsenyan, I. Sheitsa, I. Shesakova, E. Lukevics (Riga, Latvia)*
- PC-086 Novel functionalized pyrido[2,3-g]quininoxalin-2-ones as antibacterial, antifungal and anticancer agents  
*A. Carta, P. Sanna, L. Cherardini, A. Deriu, L. Sechi, S. Zanetti (Sassari, Italy)*
- PC-087 A new class of heterocyclic-containing arotrifolids endowed with potent differentiating and apoptotic activity  
*D. Simoni, M. Roberti, R. Rondanin, M. Rossi, R. Baruchello, S. Grimaudo, M. Tolomeo, D. Arindam, D. Benbrook (Ferrara, Italy)*
- PC-088 Programmed cell death associated with the stilbene motif of arotrifolids: discovery of novel arotrifolids possessing potent apoptotic activity  
*D. Simoni, F.P. Invidiata, M. Roberti, R. Rondanin, R. Baruchello, M. Rossi, C. Malaguti, A. Mazzali, S. Grimaudo, M. Tolomeo, N. D'Alessandro (Ferrara, Italy)*
- PC-089 Comparative molecular field and comparative molecular similarity analysis of propafenone-type modulators of multi-drug resistance  
*M. Šmiesko, P. Chiba, G. Ecker (Bratislava, Slovakia)*
- PC-090 Kialcorin derivatives: effect on human cancer cell lines and human T-lymphocyte proliferation  
*M.M.M. Pinto, M.S.J. Nascimento, E. Sousa, M. Pedro, F. Cerqueira (Porto, Portugal)*
- PC-091 Structure activity relationships in a series of potent MDR inhibitors  
*E. Teodorì, S. Dei, A. Garnier-Suillerot, P. Grateri, F. Qualteri, D. Manenti, M.N. Romanelli, S. Scapocchi (Firenze, Italy)*
- PC-092 New analytical investigations concerning the role of superoxide dismutase in kidney cancer  
*L. Campanella, L. Persi, R. Grossi, M. Tomassetti (Roma, Italy)*
- PC-093 Design and synthesis of potential P450<sub>α</sub> and 17β-HSD inhibitors for the treatment of breast cancer  
*T. Vinh, C. Simons (Cardiff, UK)*
- PC-094 Pyrrolid[2,3-*a*]quininoxalines analogues of antifolate methotrexate and trimetrexate  
*P. Corona, G. Vitale, M. Loriga, S. Alleca, G. Poglietti (Sassari, Italy)*
- PC-095 Synthesis and MDR-modulating activity of enantiopure 1-benzopyrano[3,4-*b*]-[1,4]oxazines  
*P. Wenzlavyakling, P. Chiba, G. Ecker (Wien, Austria)*
- PC-096 Cryptolepine-related analogs as potent antifungal agents  
*S.Y. Abiodun, P.C. Fan, A. Nimrod, A.M. Clark (Tallahassee, USA)*
- PC-097 R4-nitrosopyrazoles. Part III  
*E. Aiello, S. Aiello, F.P. Invidiata, D. Simoni, F. Mingola, M.G. Setzu, I. Serra, G. Brunelli, L. Sanna, P. La Colla (Palermo, Italy)*
- PC-098 Synthesis of new 6-bromopenicillanic acid derivatives as potential β-lactamase inhibitors  
*A. Bedini, G. Tarzia, B. Di Giacomo, G. Ganti, C. Balsamini, B. Citterio, L. Giorgi (Urbino, Italy)*

- PC-099 Disubstituted N-imidazolamines and their "carba-analogues" as antifungal agents  
*S. Castellano, G. Stefanich, G. Setzu, P. La Colla (Trieste, Italy)*
- PC-100 6-Desfluoroguaninolones: antimycobacterial activity and NAD synthetase inhibition  
*V. Cecchetti, O. Tabarini, M. Rizzi, G. Riccardi, G. Cruciani, A. Fravolini (Perugia, Italy)*
- PC-101 Insights into molecular recognition interactions at the tetracycline binding site  
*S. Cellanore, C. Maccallini, P. Iuliani, C. Altomare, M. Ferrappi, A. Carotti (Chieti, Italy)*
- PC-102 Synthesis, antibacterial, and cytotoxic evaluation of certain 7-substituted norfloxacin derivatives  
*C.-C. Tzeng, K.-C. Fan, Y.-L. Chen (Kaohsiung, Taiwan)*
- PC-103 Mini-library of diaza-boronic acids as AmpC beta-lactamase inhibitors  
*V. Buzzoni, B. Shtochet, J. Blasquez, M.P. Costi (Modena, Italy)*
- PC-104 Thymidylate synthase inhibitors as antimicrobial agents: high rate hits discovery through combinatorial approach  
*M.P. Costi, S. Ferrari, M. Ingranni, P. Pecorari, D. Tondi, M. Rinaldi (Modena, Italy)*
- PC-105 Isoxazol(3,4-d)pyridazinones and analogues as Leishmania mexicana PDE inhibitors  
*V. Dal'Priz, A. Rascon, C. Vergelli, M.E. Dubra, M.P. Giovannoni, C. Castellana (Firenze, Italy)*
- PC-106 RNase P inhibitors as potential antibacterial agents  
*D. Dean, S. Davies, A. Gaba, M. Gress, P. Ham, L. Hegg, F. King, G. Jones, A. Naylor, J. Park, N. Pearson, S. Rittenhouse, J. Seal, A. Takle, D. Wilson (Essex, UK)*
- PC-107 Synthesis of new C-6 alkylidene penicillin derivatives as potential beta-lactamase inhibitors  
*B. Di Giacomo, G. Tarzia, A. Bedini, G. Ganti, C. Balsamini, W. Barbone, F. Bartocci (Urbino, Italy)*
- PC-108 Activated nitriles in heterocyclic synthesis part II: pyrrimido[3,4*b*]benzimidazoles, pyrazolopyrimidobenzimidazoles, 2-oxaziny] and 2-pyrazolylbenzimidazoles as antimicrobial agents  
*M. El-Kerdawy, H. Hammad, G. Nawar, L. Shabaka (Mansoura, Egypt)*
- PC-109 Synthesis and biological evaluation of N-substituted-pyridin-4-thiones  
*M.D. Aytemir, R.C. Hider, D.D. Erol, M. Özalp (Ankara, Turkey)*
- PC-110 Design, synthesis and evaluation of N-substituted-3-hydroxy-pyridin-4-ones with antimicrobial activities  
*M.D. Aytemir, R.C. Hider, D.D. Erol, M. Özalp (Ankara, Turkey)*
- PC-111 Synthetic analogues of the natural product SB-219383: potent inhibitors of bacterial tyrosyl tRNA synthetase  
*R.L. Jarvest, J.M. Berge, P. Brown, R.C. Haltiwanger, D.W. Hamprecht, D.J. McNair, C.S.V. Houge-Frydych, L.M. Mensah, P.J. O'Hanlon, A.J. Pope, S. Rittenhouse (Harlow, UK)*
- PC-112 Stable analogues of physiological allylic prenyl diphosphates as inhibitors of mycobacterial prenyl diphosphate synthases  
*M. Macchia, S. Barontini, D.C. Chick, P.J. Brennan, C. Papi, M.C. Schulbach (Pisa, Italy)*
- PC-113 Stereoselective synthesis of 5-substituted-3-pyrrol-1-yl-2-oxazolidinones as useful tool to design novel potential antibacterial and CNS agents  
*A. Mai, M. Arico, G. Sturdella, S. Massa, F. Demontis, R. Loddò, D. Deljano, P. La Colla (Roma, Italy)*
- PC-114 Synthesis and antimycobacterial activity of substituted 2,4-dihydro-1,2,4-triazole-3-thione and 3*H*-thiazol-2-ylidene-hydrazone derivatives  
*M.G. Manolo, D. Zampieri, V. Falagiani, E. Tonzar, L. Vio, E. Barfi (Trieste, Italy)*
- PC-115 Synthesis and antifungal activity of imidazole linked 4,5-dihydro-1*H*-pyrazole derivatives  
*M.G. Manolo, V. Falagiani, D. Zampieri, E. Tonzar, L. Vio, E. Barfi (Trieste, Italy)*

Session C: Friday, September 22

- PC-116 Quinoline piperidines as novel anti-bacterial agents  
*R.E. Markwell, D. Davies, M. Gwynn, C. Henry, A. Hodgson, F. King, A. Naylor, A. Takle, N. Pearson, S. Rittenhouse* (Harlow, UK)
- PC-117 Antifungal activity of new arylbenzothiazoles group  
*J. Matysiak, Z. Kleinrok, D. Matosik, A. Niewiadomy, A. Kozioł* (Lublin, Poland)
- PC-118 Synthesis and *in vitro* anti-*Mycobacterium* activity of new quinoxaline 1,4-di-*N*-oxides and 2-quinoxalinecarboxanilides  
*Y. Sainz, F.J. Martinez-Crespo, M.E. Montoya, M.A. Ortega, I. Aldana, A. López de Cerain, A. Morge* (Pamplona, Spain)
- PC-120 Synthesis and antibacterial activity of pyridazino[4,3-*b*]indole-4-carboxylic acids  
*F. Pallone, F. Campagna, A. Carotti, G. Casini, A. Rosato, C. Vitelli* (Bari, Italy)
- PC-121 SAR for the lipophilic derivatives of glycopeptide antibiotic eremomycin  
*A.Y. Pavlov, M.N. Preobrazhenskaya* (Moscow, Russia)
- PC-122 Antimycobacterial and antiproliferative evaluation of aryl- and heteroaryl-derivatives of the (benzotriazol-1(2*-yl*)-yl) acrylamide  
*P. Sanna, A. Carta, M.E. Rahbar Nikookar, M.E. Seizu, M.G. Brunetti, P. La Colla* (Sassari, Italy)
- PC-123 Novel trisubstituted quinoxalines-1,4-dioxide as antibacterial, antifungal and antiprotosol agents  
*M.E. Rahbar Nikookar, P. Sanna, A. Carta, G. Paglietti, L. Sechi, P.L. Fiori, S. Zanetti* (Sassari, Italy)
- PC-124 Interaction of antimicrobial drug ethionium with DNA, homopolynucleotides and their monomers  
*V.A. Sorokin, V.A. Valeev, G.O. Gladchenko* (Kharkov, Ukraine)
- PC-125 Synergistic effect of HE/NE laser and gentamicin on alginate production in *Pseudomonas aeruginosa*  
*E. Souri, P. Owlia, Q. Behzadian-nejad* (Tehran, Iran)
- PC-126 Synthesis and *in vitro* activity of novel antituberculous compounds. Study of the pharmacokinetic profile  
*M. Terenzi, M. Pregonato, D. Ubbiati, G. Pagani, J.L. Pedraz Muñoz, A. Rodríguez Gascón* (Pavia, Italy)
- PC-127 Pyrazolo[3,4-*d*]1,3thiazine and pyrazolo[1,5-*c*]1,3,5thiadiazine derivatives as potential antifungal agents  
*C.B. Vicentini, M. Manfredi* (Ferrara, Italy)
- PC-128 Synthesis and antiviral activity of quinolone and oxazine derivatives  
*A. Bolognese, P. Ceruti, G. Nese, M. Manfra, G. Corrales, O. Mazzoni, E. Novellino, D. Delpiano, G. Seizu, G. Brunetti, P. La Colla* (Napoli, Italy)
- PC-129 Synthesis and biological evaluation of a new heterodimucleotide with anti-HIV activity  
*P. Franchetti, L. Cappellacci, M. Grifantini, L. Rossi, S. Serafini, M. Magnani, C.-F. Perno* (Camerino, Italy)
- PC-130 The new data of arbidol activity  
*R. Glushkova, T. Guskova, A. Shuster, I. Leneva, L. Krylova* (Moscow, Russia)
- PC-131 The discovery of substituted pyrrolidine human CCR5 receptor antagonists possessing anti-HIV activity  
*J.J. Hale, S.G. Mills, M. MacCoss, P.E. Finke, R.J. Budhu, E.B. Holson, M.S. Springer, L. Malkowitz, W.A. Schleif, A. Carella, G. Carver, E. Emimi* (Rahway, USA)
- PC-132 Chromosomal abnormalities analysis in B-CLL leukemia cells by fluorescent in situ hybridization  
*D. Koczkodaj, D. Rozyńska, A. Filip, M. Gawłowicz, B. Marzec, U. Gasowska, J. Wojcienowski* (Lublin, Poland)

Session C: Friday, September 22

- PC-133 A chemoenzymatic approach to the synthesis of a neuraminidase inhibitor based on the hincosaminide scaffold  
*A.M. Macione* (Roma, Italy)
- PC-134 Synthesis, *in vitro* and *in vivo* anti-*HSV1* activity of *N,N'*-bispyrimidyl dispirotripezazine  
*V. Makarov, A. Stelzner, M. Schmidtke* (Moscow, Russia)
- PC-135 Selective inhibitors of Sendai virus: pharmacophore model generation  
*F. Manetti, F. Corelli, R. Saladino, M. Botta* (Stena, Italy)
- PC-136 Pseudopeptide *N*-hydroxamides as HIV-1 protease inhibitors  
*M. Marasotti, M. Bazzano, S. Salvadori, R. Guerrini, R. Tomatis* (Ferrara, Italy)
- PC-137 Activity of DABOs against clinically relevant HIV-1 resistant mutants  
*T. Marceddu, F. Demonis, L. Vargiu, A. Mai, G. Sbardella, M. Artico, P. La Colla* (Cagliari, Italy)
- PC-138 Potent non-nucleoside inhibitors of human cytomegalovirus: benzothiadiazine dioxide (BTDO) dbenzyl derivatives  
*A. Martinez, C. Gil, C. Perez, A. Castro, M.I. Abasolo, A. Bruno, C. Prieto, J. Otero, G. Andrei, R. Snoch, J. Balzarini, E. De Clercq* (Madrid, Spain)
- PC-139 Benzimidazole derivatives: role of cyclofunctionalization on selectivity against HIV-1 or HIV-2  
*A. Chimirri, E. De Clercq, A.M. Morigore, P. Monforte, L. Musumeci, C. Pannecouque, A. Rao, M. Witvrouw, M. Zappala* (Catanzaro, Italy)
- PC-140 Synthesis of 3'-amodified nucleosides as potential anti-HIV  
*C. Montagnani, F. Corelli, M. Botta, C. Murganti* (Stena, Italy)
- PC-141 Cross-resistance pattern of DABO-resistant mutants  
*C. Masini, A.G. Loi, F. Demonis, A. Mai, G. Sbardella, M. Artico, P. La Colla* (Cagliari, Italy)
- PC-142 Fluoren  $\beta$ -*O*-glucosides: biosynthesis and DNA-intercalating activity evaluation  
*R. Orlandi, D. Macchione, R. Maccari, F. Monforte, A. Trincone, S. Alcaro, M.G. Vigorita* (Messina, Italy)
- PC-143 Tilorone analogues with IFN-inducing and anti-*HSV-2* activity  
*D. Macchione, M.G. Vigorita, R. Orlandi, R. Maccari, S. Alcaro, A. Speranza, A. Arena* (Messina, Italy)
- PC-144 Synthesis of spiro-pyranocoumarins with potential anti-HIV activity  
*V. Panileon, P. Markos, N. Pouli, A.L. Skaltsounis, E. Mikros* (Athens, Greece)
- PC-145 Physico-chemical properties and antiviral activity of streptokinase, pyruvate kinase and streptokinase-pyruvate kinase complex  
*M.I. Pavlova, O.N. Murashko, O.V. Savinova, E.I. Boreko, V.N. Nikandrov* (Minsk, Belarus)
- PC-146 Antiviral activity of adducts of fullerene  $C_{60}$  with polyvinylpyrrolidone  
*L.B. Pionrovsky, O.I. Kiselev, K.N. Kozelskaya, M.A. Dumpis, L.N. Posnjakova* (St. Petersburg, Russia)
- PC-147 Imidazopyridines as potential NNRTIs: synthesis and biological evaluation  
*G. Pirringer, J. Balzarini, E. De Clercq, C. Pannecouque, M. Witvrouw* (Innsbruck, Austria)
- PC-148 A predictive model for HIV non-nucleoside reverse transcriptase inhibitors (NNRTIs)  
*R. Ragno, M. Artico, G.R. Marshall* (Roma, Italy)
- PC-149 Binding mode and structure based drug design of new DABO derivatives  
*R. Ragno, M. Artico, A. Mai, G. Sbardella, S. Massa, D. Delpiano, R. Loddio, G. Brunetti, M.G. Seizu, P. La Colla* (Roma, Italy)

## GENERAL INFORMATION

PC-150 N,N-disubstituted dihydro-alkylamino-benzyl-oxopyrimidines, a new class of potent and

selective anti-HIV-1 agents belonging to DABOs  
G. Sbardella, A. Mai, M. Arico, S. Massa, M.G. Seizu, R. Loddo, I. Serra, G. Brunetti, P. La Colla  
(Roma, Italy)

PC-151 Is HSV1 TK selective for fixed forms of sugar ring pucker?

L. Scapozza, P. Schelling, P. Pospisil, J. Vogt, V. Marquez, A. Prota, G.E. Schulz, G. Folkers  
(Zurich, Switzerland)

PC-152 Synthesis and biological activity of indole-2-diketo acids as HIV-1 integrase inhibitors

M. Sechi, G. Paglietti, Dallochio, L. Sanna, G. Brunetti, P. La Colla (Sassari, Italy)

PC-153 Synthesis, anti-HIV-1 RT activity and binding mode of 1-(2-(diarylmethoxy)ethyl)-2-methyl-

5-nitroimidazoles (DAMNIs)

R. Silveri, M. Arico, G. De Martino, R. Ragno, S. Massa, I. Serra, F. Demontis, G. Brunetti, S.  
Dorotolo, P. La Colla (Roma, Italy)

PC-154 New amino- and hydrazaocridines: design, synthesis and biological activity

Y.I. Swoydzis, H.A. Lyakhova, S.A. Lyakhov, L.A. Litvinova, S.A. Andronati (Odessa, Ukraine)

PC-155 3D-QSAR study of quinolones as anti-HIV agents

V. Cecchetti, O. Tabarrini, E. Filippini, G. Cruciani, A. Fravolini (Perugia, Italy)

PC-156 New 1,1,3-trioxo-thieno[3,4-e][1,2,4]thiadiazines (TTDS). Synthesis and anti-HIV-1 activity

M.T. Molina, X. Liu, S. Vega, V. Gomez Parra, M. Witvrouw, C. Panneconque, J. Balzarri, E. De  
Clercq (Madrid, Spain)

PC-157 Molecular interactions in enzymes: a DFT approach. Sugar binding to HSV TK

M. Sulprizi, G. Folkers, L. Scapozza, F. Alber, P. Carloni (Trieste, Italy)

PC-158 Design and synthesis of potent Src SH2 selective inhibitors with *in vivo* osteoclast anti-

resorptive activity

R. Sundaramoorthi, W. Shakespeare, C. Mecalf, Y. Wang, C. Vu, T. Merry, C. Haroldson, U.  
Mami, S. Pradeepan, R. Bohacek, D. Dalgarno, S. Narula, M. Hatada, M. R. van Schravendijk, S.  
Adams, S. Violette, J. Smith, W. Guan, C. Bartlett, J. Julincci, F. Cerasoli, M. Weigle, T. Sawyer  
(Cambridge, USA)

### Venue

The Symposium will be held at

#### Palazzo della Cultura e dei Congressi

Piazza Costituzione 4  
40128 Bologna, Italy  
Tel.: +39 051 6375111  
Fax: +39 051 6375170  
E-mail: boccongressi@alinet.it

### Registration and Information Desk

The registration desk will be located in the entrance hall of the Conference Centre. It will be open from 15.00 on Monday, 18 September, and will remain open during the week whilst the scientific sessions are in progress.

### Information Board

General information and announcements will be displayed on an information board in the entrance hall of the Conference Centre, next to the registration desk.

### Personal Messages

Messages and incoming mail will be held at the registration desk. During the days of the Symposium mail for participants should be addressed to the individual at the following address:

Palazzo della Cultura e dei Congressi  
Piazza Costituzione 4  
40128 Bologna, Italy  
Tel.: +39 051 6375111  
Fax: +39 051 6375170  
E-mail: boccongressi@alinet.it

### Symposium Language

The official language of the symposium is English. No simultaneous translation will be provided.

### Admission Badge

Each participant will be supplied with a clip-on name badge. For security reasons, participants are asked to wear their badges at all times whilst in the Conference Centre. For the purpose of identification, the following colour scheme will be used:

Symposium Participants	White
Single Day Participants	Pink
Accompanying Persons	Yellow
Executive Committee	Blue
Secretariat	Red
Exhibitors	Green

## GENERAL INFORMATION

### Application

Attendance at any part of the Symposium, including the Accompanying Person's programme, is restricted to those who have applied in advance. The closing date for application is **August 31, 2000**.

All applications should be made on the Application Form (which can be downloaded from <http://www.sciam.unibo.it/bo2000>) and returned with the appropriate remittance. All cheques/money orders should be made payable to **Planning Congressi Srl**. Completed applications should be sent to the Congress Secretariat:

Planning Congressi Srl  
Via S. Stefano 97, 40125 Bologna (Italy)  
Tel. +39 051 302980-81 – Fax +39 051 309477 – E-mail: [info.planning@planning.it](mailto:info.planning@planning.it)

If for any reason it is necessary to send the remittance separately from the Application Form, every care should be taken to ensure that the cheque/money order includes both the **title of the meeting** and the **individual concerned**. All applications received at Planning Congressi Srl will be acknowledged.

### Fees

The registration fees (inclusive of 20% VAT) are:

#### Standard Registration: After May 31, 2000

> Industrialists	Euro	720
> Academics	Euro	720
> IUPAC members	Euro	720
> Students*	Euro	360
> Daily attendance	Euro	160
> Accompanying Persons	Euro	150

\* Students registration is only accepted after receipt of a letter of endorsement of the supervisor together with the registration form.

The registration fee for Participants to the Symposium includes:

admission to scientific sessions, Abstract book, Proceedings book (to be mailed after the symposium), Welcome Cocktail Party (Monday, September 18, 2000), Concert (Tuesday, September 19, 2000), four lunches, seven coffee-breaks.

*The Gala Dinner (Thursday, 21 September) has not been included in the registration fee and should be paid separately. The cost of the Gala Dinner is Euro 50.-.*

The registration fee for daily attendance includes:

admission to scientific sessions for the selected day, Abstract book, one lunch, two coffee breaks.

The registration fee for Accompanying Persons includes:

Welcome Cocktail Party (Monday, September 18, 2000), Concert (Tuesday, September 19, 2000), guided visit of Bologna (Tuesday, September 19, 2000).

*The Gala Dinner (Thursday, September 21, 2000) has not been included in the registration fee and should be paid separately. The cost of the Gala Dinner is Euro 50.-.*

*Similarly, lunches have not been included in the Accompanying Persons registration fee. For Accompanying Persons who wish to book for lunches the tickets will be available at the Registration Desk. The cost of the lunches will be Euro 23.- per day.*

## GENERAL INFORMATION

### Payment

Payment can be made to the following account:

Planning Congressi Srl  
no. 291/14 - ABI 05387,6 - CAB 02598,1  
at Banca Popolare dell'Emilia Romagna - Ag. 6  
Via Massarenti 228, 40138 Bologna (Italy)

Participants are reminded that bank charges are made and are deducted by the bank before passing the Congress Secretariat; it is therefore essential that such transfer of money should include a surcharge. Deductions suffered by the Congress Secretariat should be paid at the Registration Desk arrival. Please attach a copy of the payment advice to the Application Form.

Credit card payment of fees must be made in full and the following credit cards are acceptable: Visa Eurocard, Mastercard. The Congress Secretariat regrets that American Express and Diners cannot be accepted. The particular card to be debited, together with the **Account Number**, **Expiry Date**, and **Registered Name** and **Address** of the Card Holder, must be specified on the Application Form.

It is quite in order for multiple applications to be made on one form provided all individual requirements are clearly indicated. Xerox copies of Application Forms are acceptable, as are fax applications.

All data supplied by participants will be processed and held on computer by the Congress Secretariat only for the purpose of administering this conference.

Applications may be cancelled by **August 31, 2000** in which case a partial refund will be made. It is **not possible** to offer any refunds if details of cancellation are received after that date.

### Visas

Participants should check with their own local travel agents whether they will require a visa travelling to Italy. If so, they are advised to apply to the nearest Italian Embassy or Consulate at least two months before the intended date of travel.

### IUPAC

IUPAC sponsorship implies that entry visas will be granted to all bona fide chemists providing application is made not less than three months in advance. If a visa is not granted one month before meeting, IUPAC Secretariat should be notified without delay by the applicant.

### Letter of Invitation

On request, the Symposium chairman will be pleased to send personal invitations to prospect participants for XVth International Symposium on Medicinal Chemistry. Such invitations are only the purpose of assisting participants to raise travel funds or obtain visas. No financial commitment the part of the organisers is implied. Requests should be sent to the Congress Secretariat Planning Congressi.

### Technical Services

All meeting rooms will be equipped with video projectors for Power Point presentations and slide projectors for single or double projection. Overhead projectors and pointers will be available.

## GENERAL INFORMATION

Slides must be 50x50 mm with an image window of 24x36 mm in plastic or metal mounts and protected by glass. All slides must bear a serial number and identification of the correct direction of insertion.

Slides (lectures and oral communications) must be submitted at least 60 minutes before presentation to the Slide Centres which will be located near to the meeting rooms.

### Telephones

Participants are kindly requested to switch off mobile phones during the scientific sessions.

### Poster Sessions

Posters will be on display in the foyers of the Conference Centre during the poster sessions as indicated in the programme. The authors are requested to mount their own poster on the board marked with their number as listed in the abstract book before 9.00 on the day of the session and remove it at the end of the session. The organizers cannot be held responsible for damage or loss of posters which are not removed on time.

### Proceedings

The Proceedings of the Symposium containing the inaugural, plenary and main lectures will be published early in 2001. Each participant will receive a copy upon publication.

### Abstracts

A Book of abstracts of all papers presented at the Symposium will be handed out to the participants at registration.

### Meals and Refreshments

The cost of lunches on Tuesday, Wednesday, Thursday and Friday has been included in the Registration Fee for the meeting. All lunches will be served in a dedicated area where admission will be by presentation of lunch tickets only.

The cost of lunches has not been included in the fee for Accompanying persons. A limited number of tickets will be on sale at the Registration desk (Cost: 23 Euro).

No formal arrangements have been made for dinners. It is assumed that participants will make individual arrangements for eating.

Coffees and teas will be available in a dedicated area at the times specified in the scientific programme.

### Special Diet/Disability

Special diet can be provided only if advance notice is given to Organisers. The Organisers are anxious to assist wherever possible with special needs in respect of any disability and requirements.

### Exhibition

The Symposium foresees an associated exhibition of books and companies with goods and services relevant to the needs of Medicinal Chemists. Companies interested in taking part are invited to contact:

## GENERAL INFORMATION

Planning Congressi Srl

Via S. Stefano 97, 40125 Bologna (Italy)

Tel. +39 051 302980-81 – Fax +39 051 309477 – E-mail: [info.planning@planning.it](mailto:info.planning@planning.it)

or

Prof. Ettore Novellino

Dipartimento di Chimica Farmaceutica e Tossicologica

Via Domenico Montesano 49 - 80131 Napoli (Italy)

Tel. +39 081 678643 - Fax +39 081 678644 - E-mail: [novellino@unina.it](mailto:novellino@unina.it)

### Accommodation

Those participants who wish to book hotel accommodation in Bologna can do so through **Bologna Congressi Convention and Travel**.

The Accommodation/Tourist Form (which can be downloaded from <http://www.scifarm.unibo.it/bo2000>) and relevant deposit for accommodation (one night in the chosen category) plus Euro 10.33 per room as agency fee, should be sent by **August 31, 2000** to:

Bologna Congressi Convention and Travel

Piazza Costituzione 5/e - 40128 Bologna (Italy)

Tel. +39 051 637511/107 – Fax +39 051 6375149 – E-mail: [hocongressi@alinet.it](mailto:hocongressi@alinet.it)

If for any reason it is necessary to send the remittance separately from the Accommodation/Tourist Form, every care should be taken to ensure that the cheque/money order includes both the **title of meeting and the individual concerned**.

	Price per room:	single room	double room
--	-----------------	-------------	-------------

(bed and breakfast, taxes included)

Cat. A (**** stars)	Euro 154,94-165,27		Euro 206,59-237,57
Cat. B (****/** stars)	Euro 90,38-139,44		Euro 129,11-170,43
Cat. C (***) stars	Euro 77,47-103,29		Euro 103,29-154,94

All requests will be satisfied on a "first come, first served" basis. Bologna Congressi Convention and Travel reserves the right to assign the room according to the availability left.

All requests received at Bologna Congressi Convention and Travel will be acknowledged.

Payment can be made to the following account:

**Bologna Congressi Convention and Travel**

no. 313/9 - CAB 2407 - ABI 6385 Swift Code CRBOT2B

at Cassa di Risparmio in Bologna - Fil. Fiera

Piazza Costituzione 8, 40128 Bologna (Italy)

Participants are reminded that bank charges are made and are deducted by the bank before passing Bologna Congressi Convention and Travel; it is therefore essential that such transfer of money should include any surcharge. Deductions suffered by Bologna Congressi Convention and Travel should be paid directly to the Hotel upon departure. Please attach a copy of the payment advice to Accommodation Form.

## GENERAL INFORMATION

Credit card payment of fees must be made in full and the following credit cards are acceptable: Visa, Eurocard, Mastercard. Bologna Congressi Convention and Travel regrets that American Express and Diners cannot be accepted. The particular card to be debited, together with the **Account Number**, **Expiry Date**, and the **Registered Name and Address** of the Card Holder, must be specified on the Accommodation Form.

All data supplied by participants will be processed and held on computer by Bologna Congressi Convention and Travel only for the purpose of administering this conference.

Reservations may be cancelled by August 31, 2000 in which case a partial refund will be made. It will not be possible to offer any refunds if details of cancellations are received after that date.

### Correspondence

#### For Registration and Administrative Matters

Planning Congressi Srl  
Via S. Stefano 97, 40125 Bologna (Italy)  
Tel. +39 051 302980-81 - Fax +39 051 309477 - E-mail: info.planning@planning.it

#### For Accommodation and Tourist Programme

Bologna Congressi Convention and Travel  
Piazza Costituzione 5/e - Bologna (Italy)  
Tel. +39 051 637511/107 - Fax +39 051 6375149 - E-mail: bocongressi@alinet.it

#### For Information about Exhibition

Prof. Ettore Novellino  
Dipartimento di Chimica Farmaceutica e Tossicologica  
Via Domenico Montesano 49 - 80131 Napoli (Italy)  
Tel. +39 081 678643 - Fax +39 081 678644 - E-mail: novellin@unina.it

or

Planning Congressi Srl  
Via S. Stefano 97, 40125 Bologna (Italy)  
Tel. +39 051 302980-81 - Fax +39 051 309477 - E-mail: info.planning@planning.it

#### For Advice on the Scientific Programme

Prof. Carlo Melchiorre, Symposium Chairman  
University of Bologna, Department of Pharmaceutical Sciences  
Via Belmeloro 6, 40126 Bologna (Italy)  
Fax +39 051 2099734 - E-mail: carmelch@kaiser.alma.unibo.it

### Useful Websites

Congress Website: <http://www.scfarm.unibo.it/bo2000>  
Bologna Conference Centre Website: <http://www.bolognacongressi.it>  
Bologna Website: <http://www.nettuno.it/bologna/TouringBologna>

## TOURIST INFORMATION

### The City of Bologna

Bologna is at a natural cross-roads between northern, southern, eastern and western Italy, half between the Tyrrhenian coast to west and the Adriatic coast to east.

The city, which boasts one of the best preserved historical centre in the world, has about 40 kilometers of porticoed streets, where shoppers and tourists can shelter from the sun or from the rain. A number of medieval palaces are clustered around Piazza Maggiore, the main central square, and around the church of San Petronio, founded in 1390, which had been planned to be bigger than St Peter's, in Rome. Slightly further away are the twelfth century leaning Asinelli and Garisenda towers, two of the few survivors of the 200 towers which once dominated the skyline of the medieval city.

Further evidence of the rich cultural history of Bologna can be seen in its many other church monuments, museums and in its University, the oldest one in the world, founded in 1088.

Bologna is warm and welcoming, its people are hospitable and fun loving, as any visitor will discover however short his stay in this town renowned also for its excellent cuisine.

### How to get to Bologna

Bologna can be easily reached by all means of transport:

**By air:** The "Guglielmo Marconi" international airport has direct links with major centres in Europe (including Amsterdam, Barcelona, Brussels, Copenhagen, Frankfurt, Lyon, Lisbon, London, Madrid, Munich, Nice, Oporto, Paris, Prague and Vienna) and with the rest of the world via the intercontinental airports of Milan Malpensa and Rome Leonardo da Vinci.

Bologna airport is located about 9 km from the city centre and 7 km from the Conference Centre a has excellent coach and taxi connections.

**By rail:** The Eurostar train service links Bologna with more than 40 European cities, including Milan and Rome. Bologna railway station is located in the city centre, at a walking distance from the main hotel area and about 3 km from the Conference Centre.

**By road:** Bologna is a major intersection for Italy's extensive motorway network. From the ring road take exit 7 signposted Via Stalingrado and proceed to Piazza Costituzione (Palazzo della Cultura e Congressi).

### Public transportation

The Palazzo della Cultura e dei Congressi, which is located at the heart of one of the most important trade fair complexes in Europe, is only a few minutes away from the city historical centre.

Public transports are available as follow:

- from the city centre: bus n. 18 and 10
- from the railway station: bus n. 38 and 10.

### Parking

Several car parks are available all around the Conference Centre. Piazza Costituzione Car park, in the immediate surrounding of the Palazzo della Cultura e dei Congressi, has a capacity of 650 cars.

### Credit cards

Major credit cards (American Express, Diners Club, Mastercard, Visa) are accepted in most hotel restaurants and shops.

## TOURIST INFORMATION

---

### Foreign exchange

Most city banks exchange foreign currency and traveller's cheques. Opening hours: from 8.20 to 13.15 and from 14.30 to 15.30 from Monday to Friday. Some banks are also open all day either on Monday or Wednesday from 8.20 to 17.50. A bank office is available next to the Conference Centre.

### Insurance

All participants are advised to make their own travel and health care insurance. The organisers will not be liable for any accident, theft and damage to property, nor for any delays or modification in the programme due to unforeseen circumstances.

### Dress/Climate

The average temperature in September ranges from 23 °C during the day to 15 °C at night. There is no formal dress for the evening social functions, with the exception of the Gala Dinner where jackets and ties for men will be considered appropriate.

## SOCIAL PROGRAMME

---

The following social events are planned for all registered Participants and Accompanying Persons. Admission to all events will be by ticket only, and tickets will be issued only if the appropriate indication is given on the Application Form. All tickets should be collected by Participants registration on arrival.

### Monday, September 18, 2000

*Welcome Cocktail Party*

18.30-20.30

Ticket: free

### Tuesday, September 19, 2000

*Guided Visit of Bologna*

09.30-12.30

Ticket: free

*(only for Accompanying Persons)*

*Concert*

21.00-22.30

Ticket: free

### Wednesday, September 20, 2000

There are no scientific sessions on Wednesday afternoon. Possible excursions have been planned including tours with dinner (see Tourist Programme)

### Thursday, September 21, 2000

*Gala Dinner*

20.00-23.30

Ticket: Euro 50.-

## TOURIST PROGRAMME

---

The following excursions are planned for Accompanying Persons, and for Congress Participants (only on Wednesday, September 20, 2000 afternoon).

The participation to all excursions is restricted to those who have **applied in advance**. The closing date for application is **August 31, 2000**. Maximum and minimum numbers are fixed for all excursions, and participants are therefore requested to indicate an alternative choice on the application form to facilitate any reallocation if necessary. The Organisers reserve the right to cancel excursions if lack of demand (a minimum of **15 participants** is requested).

All applications should be made on the **Accommodation/Tourist Form** and returned with the appropriate remittance to **Bologna Congressi Convention and Travel**. All requests received at Bologna Congressi Convention and Travel will be acknowledged.

Participation to all excursions will be by ticket only, and tickets will be issued only if the appropriate indication is given on the **Accommodation/Tourist Form**. All tickets should be collected by Participants at registration on arrival.

### Tuesday, September 19, 2000

#### *Ferrara*

14.30-18.30

Located only 40 km north of Bologna, Ferrara is a surprise for the visitor that sees it for the first time.

The historical centre is a place to be enjoyed by strolling around and by discovering its quiet beauty. The famous Este family lived in Ferrara, and the castle, in the main square, is one of the many monuments to be visited.

Ticket: Euro 72.30/person

### Wednesday, September 20, 2000

#### *Guided visit of Bologna*

14.30-18.30

The old town center is marvellously intact and its famous porticoes – a distinctive feature for which Bologna is world famous – meander for some 40 km along medieval streets, opening out onto charming piazzas and breathtaking monuments.

Further evidence of the rich cultural history of Bologna can be seen in its many other churches, museums and in its University, the oldest one in the world, founded in 1088.

Ticket: Euro 10.50/person

or

## TOURIST PROGRAMME

---

#### *Ferrara with dinner*

14.30-23.00

Located only 40 km north of Bologna, Ferrara is a surprise for the visitor that sees it for the first time.

The historical centre is a place to be enjoyed by strolling around and by discovering its quiet beauty. The famous Este family lived in Ferrara and the castle, in the main square, is one of the many monuments to be visited.

Ticket: Euro 92.97/person

or

#### *Ravenna with dinner*

14.30-23.00

Located on the Adriatic coast, Ravenna is a small city which accumulates magnificent architecture and constructions due to its ancient and glorious past.

Its monuments are known all over the world and its name is synonym for mosaic and Byzantine art.

Ticket: Euro 103.30/person

### Thursday, 21 September, 2000

#### *Venice with lunch*

8.00-18.30

The name of this wonderful and unique city, built on 118 islands, has always enchanted and fascinated the world.

Its monuments that appear to the eyes of the visitor in an intangible interplay of light and colour, help to explain why the "Venetian Art" finds in light and colour its inner essence.

Ticket: Euro 118.80/person

or

#### *Florence with lunch*

8.30-18.30

City of balance and harmony, Florence is with its monuments one of the most famous art city in the world.

All forms of architecture, from churches to public buildings and down to the simpler houses, are informed by a strict rationalism which detests waste, exaggeration and rhetoric.

Ticket: Euro 108.50/person

## PROGRAMME OVERVIEW

	Time-table	Europauditorium	Sala Topazio	Sala Italia	
Monday September 18	15.00-17.00		Registration		
	17.00-17.30	Opening			
	17.30-18.30	Inaugural Lecture			
	18.30-20.30	Welcome Cocktail			
Tuesday September 19	08.00-09.00		Registration		
	09.00-09.45	PL1			
	10.00-10.25	ML5	ML9	ML1	
	10.30-11.00		Coffee Break		
	11.00-12.25	ML6 - ML8	ML10 - ML12	ML2 - ML4	
	12.30-12.45	OC2	OC3	OC1	
	12.50-14.00		Lunch		
	14.00-14.55	ML21, ML22	ML13, ML14	ML17, ML18	
	15.00-15.30		Coffee Break		
	15.30-16.25	ML23, ML24	ML15, ML16	ML19, ML20	
16.30-18.00		Poster Session A			
21.00-22.30	Concert (Chiesa dei Servi, Strada Maggiore)				
Wednesday September 20	09.00-09.45	PL2			
	10.00-10.25	ML29	ML25	ML33	
	10.30-11.00		Coffee Break		
	11.00-12.25	ML30 - ML32	ML26 - ML28	ML34 - ML36	
	12.30-12.45	OC5	OC4	OC6	
	09.00-09.55	ML37, ML38	ML45, ML46	ML53, ML54	
	10.00-10.30		Coffee Break		
	10.30-11.25	ML39, ML40	ML47, ML48	ML55, ML56	
	11.30-12.25	OC7 - OC9		OC10 - OC12	
	12.30-14.00		Lunch		
Thursday September 21	14.00-14.55	ML41, ML42	ML49, ML50	ML57, ML58	
	15.00-15.30		Coffee Break		
	15.30-16.25	ML43, ML44	ML51, ML52	ML59, ML60	
	16.30-18.00		Poster Session B		
	20.00-23.00	Gala Dinner (Villa Cicogna, San Lazzaro di Savena)			
	09.00-09.45	PL3			
	09.50-10.20		Coffee Break		
	10.25-11.20	OC16 - OC18	OC19 - OC21	OC13 - OC15	
	11.25-13.00		Poster Session C		
	13.00-14.00		Lunch		
Friday September 22	14.00-14.55	ML68, ML69	ML61, ML62	ML64, 65	
	15.00-15.25		Coffee Break		
	15.25-16.30	ML70, ML71	OC22, OC23, ML63	ML66, ML67	
	16.35		Closing		

PL: plenary lecture; ML: main lecture; OC: oral communication