

FIRST INTERNATIONAL CONFERENCE ON THE CHEMISTRY AND BIOLOGICAL ACTIVITY OF NITROGENEOUS HETEROCYCLES AND ALKALOIDS

The First International Conference on the Chemistry and Biological Activity of Nitrogenous Heterocycles and Alkaloids was held in October 9-12, 2001, at the Russian Academy of State Service of the President of the Russian Federation.

This was the first time since the Soviet era that such a representative forum of leading scientists from the CIS and Baltic States was organized. More than 300 scientists from 77 cities and 140 institutes participated in the conference. Among these were chemists, biochemists, biologists, pharmacologists, doctors, and other highly qualified specialists.

The multidisciplinary and international nature of the conference made it possible for scientists to present all aspects of their work: synthesis and biosynthesis, reactivity of compounds and their biological activity, structures and structure—activity relationships, mechanisms of reactions and biological activity, new directions of organic synthesis, development of highly effective novel preparations, etc.

The proposer, main organizer, and sponsor of the conference was InterBioScreen Ltd. with participation and scientific and infrastructure support from the Russian Academy of Sciences, the Moscow City Administration, and M. V. Lomonosov Moscow State University. The organizations Scientific Partnership Fund and OAO Moscow Committee for Science and Technology (Russia); the company DIA&M Modern Laboratory and the group of companies OST (Russia), Enamine and ExiMed (the Ukraine), Matrix Technologies Corp., Sigma Aldrich, and ChemNavigator (USA), and Summit Pharmaceuticals International (Japan) provided financial support.

Dr. V. G. Kartsev, Vice-President of InterBioScreen Ltd., headed the organizing committee. The Organizing, Scientific, Program, and Publication Committees and the Editorial Board for publication of conference materials included renowned scientists from Russia and the CIS. Gold and silver medals, certificates, and stipends for talented graduate and undergraduate students were awarded in order to encourage excellent presentations.

The opening ceremony of the conference included welcoming statements from Academicians G. A. Tolstikov, S. A. Andronati, V. A. Tartakovskii, N. S. Zefirov, and I. P. Beletskaya. The scientific program included plenary sessions at which 22 lectures were presented, oral presentations in the three sections: Chemistry of Synthetic Nitrogenous Heterocycles, Chemistry of Alkaloids, and Directed Synthesis and Properties of Bioactive Nitrogenous Heterocycles (62 papers), and a poster session at which 220 posters were presented.

The high scientific level of the conference was evident in the plenary sessions. The most important and interesting aspects of problems recently arising in the CIS were reviewed. These included computational prediction of biological activity (V. V. Poroikov); research on quantitative structure—activity relationships (N. S. Zefirov); the search for biologically active compounds in various classes of alkaloids from plants (M. S. Yunusov) and marine organisms (G. B. Elyakov); new directions in the chemistry of isoquinoline (V. G. Kartsev) and quinazoline alkaloids (Kh. M. Shakhidoyatov) and in the chemistry of 1H-1,2-diazaphenalene (V. V. Mezheritskii) and azines (V. V. Dovlatyan); new approaches to the synthesis of bioactive azoles and azines (B. A. Ivin), annelated 5-hydroxyindoles and benzofurans (V. G. Granik), and derivatives of benzo[b]furo- and benzo[b]thiophenindoles (T. E. Khoshtariya) and 1,3,4-oxadiazoles (L. I. Belen'kii); development of new medicinal agents (S. M. Adekenov), including chiral medicines (R. G. Kostyanovskii), new analgetics and anesthetics (K. D. Praliev), and nootropic agents (G. A. Tolstikov); strategy for synthesizing μ -opioid agonists (E. E. Shul'ts); molecular design and synthesis of N-containing ligands of serotonin receptors (S. A. Andronati); and others.

The oral presentations and posters included just as interesting work on synthetic methods for new N-containing heterocyclic compounds and their properties such as biological activity (antitumor, anti-AIDS, hepatoprotective, antioxidant, etc.). Very important results in interdisciplinary areas involving the chemistry of synthetic and natural heterocyclic compounds, medicinal chemistry, and pharmacology were also disclosed. These included papers on new P,N-heterocycles (V. F. Mironov),

new approaches in the chemistry of sydnone (V. N. Kalinin), novel analgetics (A. M. Demchenko), new natural anti-arrhythmic agents based on diterpenoids (B. T. Salimov) and indole alkaloids (I. F. Makarevich), and others.

The closing ceremony consisted of awards to authors of the best work. Commemorative gold medals were awarded to authors of six plenary, eight oral, and five poster presentations.

Gold Medals for Contributions to Science and Scientific Partnership accompanied by nominal stipends for talented graduate and undergraduate students were supplied by the Scientific Partnership Fund and awarded to the N. D. Zelinskii Institute of Organic Chemistry (Moscow), N. N. Borozhtsov Novosibirsk Institute of Organic Chemistry, Institute of Physiologically Active Substances (Chernogolovka), Pacific Institute of Bioorganic Chemistry (Vladivostok), Institute of Organic Synthesis (Ekaterinburg), Institute of Organic Chemistry (Ufa), A. V. Bogatskii Physicochemical Institute (Odessa), S. Yu. Yunusov Institute of the Chemistry of Plant Substances (Tashkent), A. B. Bekturov Institute of Chemical Sciences (Almaty), Institute of Phytochemistry (Karaganda), *Zhurnal Organicheskoi Khimii* (*Russia Journal of Organic Chemistry*) (St. Petersburg), *Khimiya Geterotsiklicheskikh Soedinenii* (*Chemistry of Heterocyclic Compounds*) (Riga), OAO Moscow Committee for Science and Technology, and the Russian Section of the QSAR and Modeling Society (Moscow).

A Silver Medal for Contribution to Science and Scientific Partnership was awarded to Academician A. A. Akhrem (Institute of Bioorganic Chemistry, Minsk).

Three groups of authors from the Institute of Fine Organic Chemistry (Erevan), Institute of Technical Chemistry (Perm'), and St. Petersburg University were given special certificates and Commemorative Gold Medals for Special Contributions to the Development of Modern Methods for Synthesizing and Modifying Heterocycles.

The conference was organized professionally and conducted on a high world level. This enabled scientists not only to present their work but also to discuss a wide range of problems relevant to strategies for further research, the broad incorporation of modern high technology, the development of promising directions and new approaches to resolving problems, and the strengthening of scientific and business collaboration between scientists, various institutes, universities, and scientific-research centers of various CIS countries.

The conference materials appeared in a two-volume monograph that was published in Russian and English under the title *Nitrogen-Containing Heterocycles and Alkaloids*. The monograph is the first in a series of publications on the Chemistry of Biologically Active Synthetic and Natural Compounds (CBC). The first volume contains plenary and oral presentations; the second, abstracts of posters and 100 of the more interesting new methods for synthesizing and modifying complicated heterocyclic compounds that have been developed by CIS scientists. Many of the methods are original, have preparative significance, and were awarded certificates. Conference materials can be obtained from the Scientific Partnership Fund: e-mail: spfund@ibscreen.chg.ru; tel: 8-(252) 49 489 (for Moscow and Moscow District), (09652)-49-489 (for other regions); fax: (095) 913 21 14 to Natal'ya Leonidovna Fatkulbayanova.

The next International Conference is planned for 2003 and will address oxygen- and sulfur-containing synthetic and natural heterocyclic compounds.