

Joint Release

LION bioscience and Bayer Pioneer Linkage Between Chemistry & Genomics To Speed Life Science Discovery Research

LION & Bayer Expand *i*-biology™ Collaboration Into Pharmacophore Informatics

HEIDELBERG & LEVERKUSEN, GERMANY, October 16, 2000 – In a deal that marks the beginning of the integration between genomics and the chemical sciences, LION bioscience AG (Neuer Markt: LIO, Nasdaq: LEON), and Bayer AG (Frankfurt: BAY) announced today that they have expanded their existing bioinformatics IT-partnership into the field of pharmacophore informatics. As a key feature, pharmacophore informatics will identify the relevant structural elements present in an increasing amount of biological and chemical structures that are being characterized by numerous high-throughput systems. As the overall project leader, LION will coordinate the development of the novel pharmacophore informatics platform. In close collaboration with Tripos, Inc. (Nasdaq: TRPS), a leading developer of cheminformatics solutions, LION will develop and deploy the tools, methods and systems for the field of cheminformatics to that platform. The extended system will improve Bayer's ability to identify, select and optimize the most promising drug and plant protection candidates. The deal represents a major advance in the approach Life Science companies are adapting to improve the decision support for selecting optimal development candidates from among the many increasing numbers of targets being generated through genomics.

“Developing an efficient and integrated system for accessing all of the know-how housed in databases across Bayer's Life Science business groups, that can also be crosslinked with genomic information from internal and public sources, will greatly improve our decision making processes, to enter new areas of active substance discovery,” said Dr. Pol Bamelis, Member of the Board of Management of Bayer AG and Chairman of the company's Board Committee for Research and Development. “By expanding our collaboration with LION as our strategic partner in the field of Life Science R&D we expect significant synergy effects at each step of our research process, from hit selection to identification of the most promising candidate.”

“The pressure to analyze the increasing volumes of targets and chemicals is driving the need for more intelligent and integrated solutions,” said LION’s Chief Executive Officer, Dr. Friedrich von Bohlen. “We have had great success working with Bayer in furnishing high-grade targets and in shaping Bayer’s bio-IT infrastructure. Together with Tripos we began in 1998 to develop systems that enable the integration and analysis of the two complex and diverse disciplines, genomics and chemistry. Integrating cheminformatics to our knowledge management systems is the next logical component in the continued growth of our *i-biology*TM solution for the needs of the Life Science industry’s whole R&D cycle.”

Under the terms of this benchmark agreement, Bayer will make an approximately USD \$25 million payment in the form of technology licensing fees, R&D funding and milestone payments between now and March 2003, which LION will share with Tripos. LION together with Tripos will retain all rights for the immediate resale of the software systems and solutions developed during the collaboration.

“Converting the huge amount of data generated by high throughput drug discovery processes into information and knowledge requires the integration of chemistry. This is the next major bottleneck in pharmaceutical drug and crop protection development,” said Prof. Wolfgang Hartwig, Executive Vice President of International Pharma Research at Bayer and Chairman of the companies Life Science Research Committee. “The volume of new biological data being generated is unprecedented, and it is only through the intelligent marriage of biology and chemistry that this new knowledge will be turned into products. Through our partnership with LION we will establish the necessary IT-technology which will enable us to better utilize our steadily growing amount of data to identify the key elements in pharmacophore structures that cause selective biological activity.

"Adding pharmacophore informatics and knowledge management, and integrating it with our existing bioinformatics platforms, is a big step towards establishing a strongly IT-driven R&D process," continued Prof. Hartwig "This strategic step adds new functionality to our global high tech platforms, which will enable us to move the best of the gene-base targets we are already receiving from LION and our other genomics partners into full scale development. It will increase our cost efficiency and reduce our target-to-development cycle time."

LION will develop and install the new pharmacophore system in collaboration with Tripos. The novel tools and systems will significantly enhance Bayer's capabilities in high-throughput screening experiment planning and data analysis and in the generation of structure-activity relationships, to shorten the discovery cycle and to reduce attrition rates of those pharmaceutical and plant protection candidates that are advanced to the development stage. LION will also provide Bayer with a globally shared project tracking and knowledge management system to help increase the overall efficiency, and address the new challenges presented by the introduction of high throughput compound profiling techniques.

In June 1999, LION and Bayer entered into a five-year, \$100 million alliance to increase the speed and efficiency of Bayer's enterprise-wide gene and drug discovery efforts through the use of an information technology-based management system. Under the alliance LION is developing and applying new IT-systems for ultra high throughput identification and validation of 500 new drug targets, 70 new annotations on existing Bayer-owned gene targets and an undisclosed number of gene expression markers and SNPs. To date, LION is ahead of schedule, having delivered more than 140 protein targets, of which Bayer has moved 72 into further biological and chemical evaluation.

About Bayer AG

Bayer ([http:// www.bayer.com](http://www.bayer.com)) is an international, research-based group with major businesses in health care, agriculture, polymers and specialty chemicals. With some 120,000 employees worldwide, the group recorded a net income of 2 billion euros on sales of 27.3 billion euros in 1999. For the current year 2.4 billion euros are budgeted for capital expenditures and 2.2 billion euros for research and development.

About LION bioscience AG

LION bioscience AG (<http://www.lionbioscience.com>) is a pioneer in the field of enterprise-wide R&D data analysis and information management systems and solutions for the life sciences and, ultimately, the healthcare industry.

To date, LION AG has established numerous alliances in informatics and genomics with leading Life Science research companies, including Aventis, Bayer, Boehringer Ingelheim, Celera, DuPont, Glaxo Wellcome, Janssen, Merck Inc., Novartis, Pharmacia & Upjohn, SmithKline Beecham and Sumitomo Pharmaceuticals.

All statements in this press release that are not historical are forward-looking statements within the meaning of the U.S. securities laws. Such statements are based on current expectations that are subject to risks and uncertainties. Actual results may vary materially from those projected because of factors such as uncertainties relating to technologies, product development, or manufacturing, market acceptance, cost or pricing of LION's products, dependence on collaborations and partners, regulatory approvals, competition, intellectual property of others, or patent protection and litigation. These and other risk factors are discussed in LION's Registration Statement on Form F-1 declared effective by the Securities and Exchange Commission on August 9, 2000. LION expressly disclaims any obligation or undertaking to release publicly any updates, revisions or corrections to any forward-looking statements or historical information contained herein. These forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially.

#

WebCast/Conference Call: A real-time videostream web cast with executives from LION, Bayer and Tripos has been arranged to discuss this pioneering collaboration.

Time: October 16, 2000, 3:30 p.m. CET / 9:30 a.m. EST
at www.noonanrusso.com