

Center for Applied Nanotechnology

Newsletter . Edition 3 - March 2008

CAN GmbH named “Landmark 2008” in the “Land of Ideas” Research and development up close



The Center for Applied Nanotechnology is representing Hamburg this year as a “Landmark” in the event series “365 Landmarks in the Land of Ideas”. “Germany – Land of Ideas” is a joint initiative of the Federal Government and German industry, represented by the Federation of German Industries (BDI). “We are really pleased to be able to represent Hamburg, a center of science and research, as a “Landmark in the Land of Ideas,” says Dr. Frank Schröder-Oeynhausen,

Chief Operating Officer of CAN. “This award shows we are helping to shape the future with applied research from Hamburg.“

CAN GmbH was one of the 16 Hamburg initiatives chosen from around 1,500 applicants nationwide. The German President Horst Köhler is patron of the “Germany – Land of Ideas” initiative. The goal of the campaign since 2006 has been to convey a positive image of Germany to Germans and the rest of the world as well as to highlight the strengths of Germany as a center of business and industry. The key message is: “Germany leads through innovation.” Deutsche Bank and the WELT Group of the Axel Springer-Verlag are important supporters of the initiative. CAN GmbH will be holding an Open House for the public on the 4th of December.

Contact Gabriela Sterly-Müller, E-Mail: gsm@can-hamburg.de

CAN GmbH welcomes Firmenich SA to Sponsor Association

At the end of 2008 the sponsor association of CAN GmbH gained a new member with Firmenich International SA, the world's third largest manufacturer of flavours and fragrances. This company with a long tradition and currently about 1,400 patents supplies cosmetic and food manufacturers with flavours and fragrances. Based in Geneva, Switzerland, the flavour and fragrance specialist has over 4,800 employees worldwide and is 100 % owned by the Firmenich family. "We are delighted to have a powerful new member in our sponsor association," says CAN Chief Operating Officer Dr. Frank Schröder-Oeynhausen. "CAN's technology portfolio is an excellent fit for Firmenich's areas of application." For more information on the company see: www.firmenich.com

Contact Dr. Frank Schröder-Oeynhausen, E-Mail: fso@can-hamburg.de

Pilot study on the "Patent Pooling Method"

On 19 December, 2007, a pilot project on "Study of the Patent Pooling Method" was approved as part of Hamburg's Regional Innovation Strategy (RIS) program. In a six-month project CAN GmbH will cooperate closely with other partners on a study in the young field of research of nanoscale contrast agents. The objective is to determine whether bundling of existing patent rights by the patent pooling method can overcome barriers to innovation and information deficits among market players. Such barriers often arise from inadequate coordination of business and patent strategies; moreover, market entries can be blocked by multilayer, independent patents. The patent pooling method can be applied to many aspects of high technology – including bio- or nanotechnology. The project proposal was submitted by the Verein zur Förderung der Nanotechnologie e. V. (Association for the Promotion of Nanotechnology) – the sponsor association of CAN GmbH. The project will be carried out by CAN GmbH, the University of Hamburg (Institute for Marketing & Innovation), the Hamburg Chamber of Commerce (Dept. Innovation, Technology and Universities), the University Medical Center Hamburg-Eppendorf, MediGate GmbH and Klawitter Neben Plath Zintler Law Associates. The aim of the RIS Hamburg program is to improve the innovative and competitive capacity of small and medium enterprises (SME) in Hamburg.

Contact Dr. Frank Schröder-Oeynhausen, E-Mail: fso@can-hamburg.de

Interview: “Presence at trade fairs is a long-term investment in our success”

Dr. Schotten, you have been responsible for Business Development/Research & Development at CAN GmbH since January 2008. In February, you officially represented CAN GmbH at the nano tech in Tokyo. How important is this trade fair internationally?

Schotten: The nano tech in Tokyo is – together with the NSTI Nanotech in Boston – the world’s largest exhibition in the nanotechnology area. This year the Tokyo fair had about 500 exhibitors and over 17,000 visitors daily. Many German companies and institutions have already recognised the importance of the Asian market for their business, and with 60 exhibitors the German Area was the largest international partner at the fair.

Dr. Schröder-Oeynhausen, did the Tokyo fair meet CAN’s expectations?

Schröder-Oeynhausen: Yes, definitely. As the flagship nanotechnology company of the metropolitan Hamburg area, we were able to position CAN GmbH as a research and development facility for the first time outside Europe. In light of the fact that Japanese companies are very clubby and suppliers from the West traditionally have a harder time having their services accepted, we were very successful. We were able to establish some very interesting contacts with well-known companies and sound out the chances for our technologies and products in the Japanese market.



How do you assess the positioning of CAN GmbH as a center of applied research nationally and internationally?

Schröder-Oeynhausen: CAN GmbH has a broad range of expertise with a solid scientific foundation in the area of synthesis and modification of nanoparticles, making it extremely attractive as a subcontractor for industry. This is due especially to the work of the groups of Prof. Horst Weller and Prof. Stephan Förster focusing on “Synthesis” and “Encapsulation”, respectively. We can compete with comparable facilities both on a national and international level, as confirmed by inquiries from well-known companies and research institutions. Dr. Schotten will make a major contribution with his experience and expertise in helping us to increase our strengths in future and concentrate specifically on markets that are interesting commercially for our applied nanoresearch.

Dr. Schotten, could you please give us an idea of your professional background and describe what you do at CAN GmbH?

Schotten: After doing my doctorate in the Institute for Biochemistry at the University of Cologne I first worked for the Pharma Division of Beiersdorf until I moved to the Beiersdorf-Lilly Research and Development Center in 1992. I gained my professional experience as a medical chemist mainly in cardiovascular and diabetes research. In addition, I bring with me to CAN GmbH research experience gained in interdisciplinary work in the areas of safety coordination, parallel syntheses, chemical information technology, software development and patents. My job at CAN GmbH is to evaluate scientifically developments in the business units particularly from the perspective of a biochemist and to analyze the economic feasibility of using current and new projects for commercial applications.

Dr. Schröder-Oeynhausen, what do you see as the important markets for CAN GmbH today?

Schröder-Oeynhausen: For the research areas at CAN GmbH, these are markets primarily in the cosmetics and consumables areas, in the biomedical area, in material sciences with medical applications as well as for special coatings. We are currently investing heavily in the development of our own technology platforms for these fields of application. We are also working closely with other partners on the topics “Molecular Imaging” and “Theranostics”.

What do you see as the biggest challenges for CAN GmbH in the coming years?

Schotten: CAN GmbH finds itself in a very competitive environment. In our business you always need to distinguish between more university-driven knowledge generation and commercially motivated product development. The strength of CAN GmbH as a small company is the expertise of our staff that enables us to form a bridge between university research and industrial application.

Schröder-Oeynhausen: It is important in this role to always give economic aspects priority and take into account the needs of the industry. For, at the end of the day, we earn our money not with scientific publications but with marketable patents.

nano tech 2008 in Tokyo

From 13 to 15 February, CAN GmbH was present at the leading international trade fair for the nanotechnology industry, nano tech 2008, in Tokyo. The International Nanotechnology Exhibition & Conference is the nanotechnology industry's largest exhibition – with a total of about 50,000 visitors. Germany was the biggest trade fair partner with 60 exhibitors on the over 1,000-square-meter German Area. For more information: www.ics-inc.co.jp/nanotech/en



Contact Dr. Frank Schröder-Oeynhausen, E-Mail: fso@can-hamburg.de,
Dr. Theo Schotten, E-Mail: schotten@can-hamburg.de

Good Chemistry in Hamburg

The Department of Chemistry at the University of Hamburg (UHH) does excellent research – as shown by the results of the pilot study “Research Rating Chemistry” conducted by the German Science and Humanities Council. Seventy-seven universities and research institutions were assessed according to the following criteria: research quality, impact/effectiveness, efficiency, success in promoting young researchers, transfer to other areas of society and knowledge transfer and dissemination. Awarded the rating “excellent” was the research in the field of physical chemistry. The UHH also received a rating of “excellent” from the Science and Humanities Council for the criteria that are important for Hamburg as a center of research and development: success in promoting young researchers and transfer. Only six universities received a rating of “excellent”. “We are naturally especially pleased that field of physical chemistry in Hamburg did so well. This shows that here an internationally outstanding center for chemical nanotechnology has evolved thanks to focusing of research, creation of research networks and targeted support from the University and city of Hamburg“ says Prof. Horst Weller, Director of the Institute for Physical Chemistry and Chief Scientific Officer of CAN GmbH.

Contact Prof. Dr. Horst Weller, E-Mail: weller@can-hamburg.de

CAN GmbH growing

New colleagues for new challenges. Since 1st of January, Dr. Theo Schotten (51) has been the head of Business Development/Research & Development at CAN GmbH. He is responsible for a new cross-departmental function to integrate the various business units of CAN GmbH. Also new in the CAN Team since 1st of March is Dipl.-Chem. Jan-Steffen Niehaus (29) as an expert for microreaction technology and the synthesis of nanoparticles.

Contact Dr. Theo Schotten, E-Mail: schotten@can-hamburg.de,
Jan-Steffen Niehaus, E-Mail: niehaus@can-hamburg.de

CAN GmbH Partners

In good company

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Free and Hanseatic City of Hamburg fhh.hamburg.de/stadt/Aktuell/behoerden/wissenschaft-forschung

Hamburger Sparkasse www.haspa.de

Hamburg Chamber of Commerce www.hk24.de

Innovationsstiftung Hamburg www.innovationsstiftung.de

Norgenta North German Life Science Agency www.norgenta.de

Competence Center Hansenanotec www.nanoscience.de/hansenanotec

University of Hamburg www.uni-hamburg.de



CAN GmbH offers companies and research institutions contract research and development services in the area of nanotechnology and participates in national and international research programs. The focus of activities is on the utilization of new findings made in chemical nanotechnology and nanoanalysis, particularly in the areas of consumables, special polymers and health care. The main areas of expertise include, in addition to the characterization of nanostructures, the production of numerous nanoparticulate and nanocomposite materials, the encapsulation of active substances as well as the development of nanoparticle-based biological and medical markers.

CAN GmbH
Grindelallee 117
20146 Hamburg
Germany

P +49.40.428 38 - 49 83
F +49.40.428 38 - 57 97
info@can-hamburg.de
www.can-hamburg.de