



18TH MEETING DEDICATED TO CHEMISTRY –
PLATFORM FOR THE EXCHANGE OF KNOWLEDGE BETWEEN
NOBEL LAUREATES AND INTERNATIONAL TOP TALENTS

The 56th Lindau Meeting of Nobel Laureates

Retrospects and Prospects 2006



Council for the Lindau Nobel Laureate Meetings
Foundation Lindau Nobelprizewinners Meetings at Lake Constance



18TH MEETING DEDICATED TO CHEMISTRY –
PLATFORM FOR THE EXCHANGE OF KNOWLEDGE BETWEEN
NOBEL LAUREATES AND INTERNATIONAL TOP TALENTS

The 56th Lindau Meeting of Nobel Laureates

Retrospects and Prospects 2006



Council for the Lindau Nobel Laureate Meetings
Foundation Lindau Nobelprizewinners Meetings at Lake Constance

PUBLISHED BY	Council for the Lindau Nobel Laureate Meetings, Ludwigstr. 68, 88131 Lindau, Germany Foundation Lindau Nobelprizewinners Meetings at Lake Constance, Mainau Castle, 78465 Insel Mainau, Germany
IDEA	Thomas Ellerbeck, Member of the Council for the Lindau Nobel Laureate Meetings and of the Board of the Foundation Lindau Nobelprizewinners Meetings at Lake Constance
REALISATION & TEXTS	Prof. Dr. Astrid Gräslund and Prof. Dr. Wolfgang Lubitz in cooperation with Christian Rapp (Communication and Organisation, Council for the Lindau Nobel Laureate Meetings)
LAYOUT & PRODUCTION	Andreas Mayer / campra – Büro für Visuelle Kommunikation, Stuttgart
PHOTOS	Peter Badge / typos I (Portraits), Berlin and Christian Flemming, Lindau
PRINTED BY	Ritter Druck AG, St. Gallen, Switzerland

For more information, please contact our office in Lindau:

Council for the Lindau Nobel Laureate Meetings, Ludwigstr. 68, 88131 Lindau, Germany
Phone + 49 (0) 8582 – 27731 15 Fax + 49 (0) 8582 – 27731 13 info@lindau-nobel.de

Foreword



Countess

Sonja Bernadotte af Wisborg
*President of the Council for the
Lindau Nobel Laureate Meetings*

The 56th Meeting of Nobel Laureates in Lindau had an even more international flair than other meetings before it. New international partners for cooperation joined in the efforts to find the most talented young scientists from across the world to participate in the unique interaction with Nobel Laureates on Lake Constance: The Lindau “window to the world” opens even wider.

This year, it was the turn of Nobel Laureates in Chemistry to congregate on Lake Constance. Participation of several Laureates in Physics and Medicine/Physiology stimulated interdisciplinary exchange and dialogue between these leading authorities in their fields and young scientists invited from 53 countries.

The international character of the Lindau Meetings reflects just how crucial cross-cultural and cross-border dialogue between the research elite of today and that of tomorrow actually is. Recognition of the multi-faceted nature of our world and its differences in the perception of values is essential in an increasingly globalised environment. A global scientific community requires a globally-orientated understanding of what constitutes responsibility. The interaction made possible on Lake Constance helps to create networks of young researchers and doctoral students that will foster this goal.

The Council for the Lindau Nobel Laureate Meetings and the Foundation Lindau Nobelprizewinners Meetings at Lake Constance greatly appreciate the support of benefactors and partners. Their generosity and patronage are indispensable to the development of the Lindau Meetings. They moreover represent a vivid and valuable example of public-private-partnership.

NOBEL LAUREATES PARTICIPATING



Peter Agre (USA)
Chemistry 2003



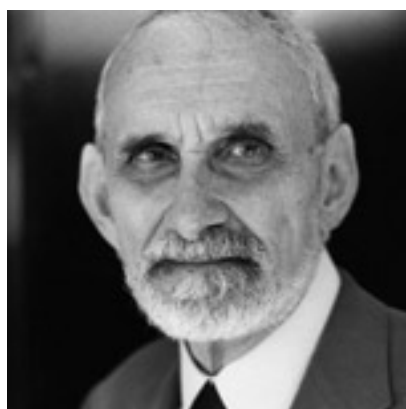
Werner Arber (Switzerland)
Physiology or Medicine 1978



Aaron Ciechanover (Israel)
Chemistry 2004



Paul Crutzen (Netherlands)
Chemistry 1995



Robert F. Curl Jr. (USA)
Chemistry 1996



Johann Deisenhofer (Germany)
Chemistry 1988



Richard R. Ernst (Switzerland)
Chemistry 1991



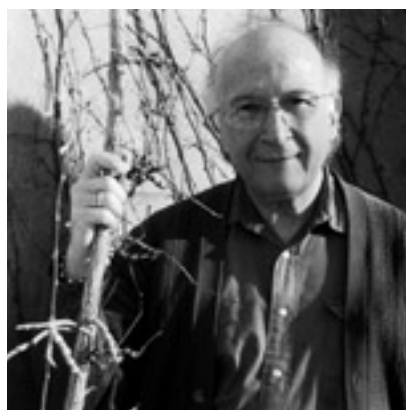
Roy J. Glauber (USA)
Physics 2005



Theodor W. Hänsch (Germany)
Physics 2005



John L. Hall (USA)
Physics 2005



Roald Hoffmann (USA)
Chemistry 1981



Robert Huber (Germany)
Chemistry 1988



Jerome Karle (USA)
Chemistry 1985



Walter Kohn (USA)
Chemistry 1998



William N. Lipscomb (USA)
Chemistry 1976



Rudolph A. Marcus (USA)
Chemistry 1992



Hartmut Michel (Germany)
Chemistry 1988



Erwin Neher (Germany)
Physiology or Medicine 1991



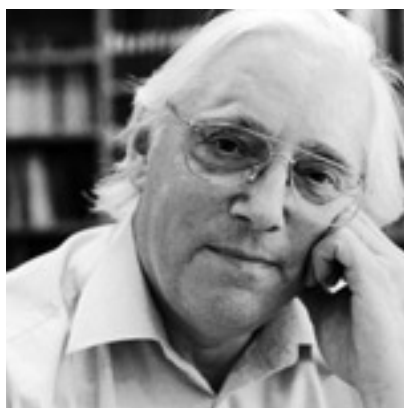
Ryoji Noyori (Japan)
Chemistry 2001



Sherwood F. Rowland (USA)
Chemistry 1995



Richard R. Schrock (USA)
Chemistry 2005



Sir John E. Walker (Great Britain)
Chemistry 1997



Kurt Wüthrich (Switzerland)
Chemistry 2002

YOUNG RESEARCHERS' STATEMENTS



“ One of the greatest aspects of the meeting for me was discovering who the Laureates were as people. You can always read their science, but meeting them in person allowed me to hear their thoughts on topics far outside of science and gave their literary words a real vitality. The meeting in

Lindau left me with a feeling that it takes much more than quality science to be a valuable member of the world’s scientific community. This past year’s meeting is an experience I feel honored to have been a part of and will not forget.

Christopher J. Thode, USA ”

“ It is not that every day, even a year or a century – you have the opportunity to meet the greatest, most creative and highly intelligent people on earth... That is one definite thing that I would say about my experience in Lindau. I also found out that science is global.



It grows up without horizon and boundary. With different cultures, beliefs and levels of education, all participants and Laureates can sit together and talk on whatever issue; science, politics etc. The passion and enthusiasm of these people for their research and science in general motivate me as a young researcher to proceed and develop my research “vigorously”.

Yuhanis Mhd Bakri, Malaysia ”



“ Meeting and discussing with some of the most famous scientists together with colleagues from all over the world in the fantastic and relaxed atmosphere of Lindau and the Lake Constance was a wonderful and unique experience to me. Especially the afternoon discussions with

the Laureates, but also the manifold talks, discourses and meetings with the other participants provided fascinating and precious insights in different curiosity driven ways of scientific thinking. I really hope that many other young researchers will get the chance to come to Lindau to enjoy and take home this special atmosphere.

Jürgen Arning, Germany ”



“ I found it a most interesting experience, due to the combination of but also the contrast between the relatively old and very experienced Nobel Laureates on the one hand and the young and inexperienced audience on the other. I found the atmosphere very nice among the young scientists and have added many contacts to my personal and professional networks. Finally, I valued the discussion sessions with the Nobel laureates greatly.

**Dr. Marga Cornelia Lensen,
The Netherlands ”**



“ To understand deeper, to look wider and to develop the knowledge in any field of the science one has to meet those outstanding Nobel Laureates. They can observe this scientific life from a different level and can greatly motivate for further achievements. Moreover, meeting the bright

young researchers from all over the world adds to the very special atmosphere... The Nobel Laureates Meeting in Lindau opens for that great opportunity and reserves indispensable experience and vivid recollection!

Tatiana Luts, Russia ”



“ The Lindau Nobel Laureates Meeting is a good way to encourage young scientists to develop themselves and build networks around the world, with promising young scientists and also with the Laureates. For myself, this Meeting was really interesting since I had the chance to be in

contact with the Laureates and young scientist from different countries. And I wish to thank my sponsor Helmholtz Gemeinschaft und the post-doc fellow from Alexander von Humboldt Stiftung.

Dr. Jerusa Roeder, Brazil ”

“ The Lindau Meeting of Nobel Laureates offered the right atmosphere to meet and discuss with the world's scientific leaders. It was interesting to find out how the Nobel Prize changed their life. I enjoyed a lot meeting other young scientists from all over the world. I am thankful to the European Commission (Marie Curie Programme) for giving me the opportunity to attend this meeting.



Dr. Gerard Tobias, Spain ”



“ It was a great honour for me as a beginner PhD student to be able to participate in the 56th Meeting of Nobel Laureates in Lindau. Meeting so many Nobel Laureates was a tremendous experience that I will never forget because talking to them about their studies and their life was such a

wonderful opportunity for me. Moreover, I highly enjoyed meeting young scientists from all over the world that are excited about science. **Yasar Akdogan, Turkey ”**

“ Meeting one Nobel Laureate is an honor but to spend a week with 23 of them is a unique, once-in-a life-time opportunity, which I will never forget. Attending the lectures covering a wide variety of problems, ranging from top-level developments in the Laureates' laboratories to the influence of science and technology on social issues, gave me the chance to talk and listen to the researchers who laid the recent basis for my own research. Meeting the international scientific elite of chemistry, otherwise only known to me from literature as textbook heroes, was enriching as I enjoyed discussing with them their thoughts and views regarding also social and political events concerning my region and the global community.

Saul Reichman, Israel ”



Speeches at the Opening Ceremony of the 56th Meeting of Nobel Laureates



Countess Sonja Bernadotte af Wisborg
President of the Council for
the Lindau Nobel Laureate Meetings



Dr. Janez Potočnik
European Commissioner for
Science and Research

“Our aim is to invite the most promising new generation of scientists in the respective disciplines to participate in the Meeting of Nobel Prize Winners in Lindau. This is a case of helping the elite – that of today, and that of tomorrow – for the very best of reasons. Each of you represents the cornerstone for excellence – in science, in business and in society as a whole. Each of you has much to say, and each of you has shown the ability to learn from others.”

“The trusting working relationship we enjoy with academies of science, research centers, leading universities and ministries devoted to education, research and science, as well as with institutional partners and patrons, makes all this possible.”

“The Lindau Meetings have evolved over time. They now have an international flavor and are world renowned. If I may use your own metaphor: the much-quoted ‘shake-up’ has taken place. We are well on the way to becoming the most important meeting in Europe for young scientists.”

“I am personally convinced that Europe has no choice but to embrace globalisation in Europe, to compete on our merits and not on our past, to be open not closed and, above all, to make this choice work in practice. Very simply, this means that we have to deliver on a European knowledge-based economy and society. Because knowledge, and with this I mean the way in which knowledge is produced through research, diffused through education and used through innovation, is the answer to Europe’s main challenge: Boosting growth and jobs, promoting a sustainable, healthy, safe and social Europe.”

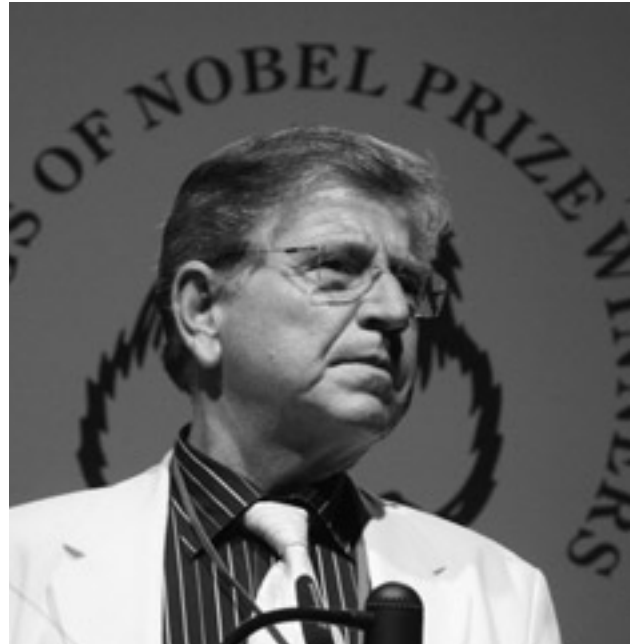
“What we need and what we want is an attractive Europe, with exciting research opportunities in scientific fields of the future; with human resources and capacities optimised to match our ambitions; with a society that is aware and supportive of research. A research Europe that is also connected and above all open to the world, co-operating and sharing knowledge with the best groups outside Europe. Such a Europe is within our reach.”



Dr. Annette Schavan
German Federal Minister for
Education and Research

“This Meeting serves as an outstanding business card, presenting Germany as an attractive location for research and education – with great appeal worldwide. And this is why the Federal Ministry of Education and Research has committed itself to supporting this and future Meetings.”

“Due to the looming shortage of experts in the natural sciences and technology, we must pull out all the stops to attract skilled employees at every functional level. Alone to reach the 3 percent goal of the Lisbon Strategy set by the heads of state of the European Union, we are lacking 90,000 scientists and engineers. The potential of technology-oriented women is particularly important and numerically significant. Studies indicate that up to 10,000 additional women could be won for these fields of work – an economic order of magnitude worth making an effort for.”



Dr. Thomas Goppel
Bavarian State Minister for Science,
Research and the Arts

“This is a meeting place for two generations of researchers. Over the next few days, the scientists of tomorrow will have the opportunity to exchange thoughts and experiences with the award-winning greats of their fields. Not only that, but this Meeting also brings together scientists from all over the world.”

“The Lindau Nobel Laureate Meeting is a true guiding light project for Bavaria. Here is where excellence and the elite are fostered and nurtured. Here is where intellectual scope for visions is created.”

“Excellent research results require an excellent environment. Only so can potential be exploited to the full. The visitors to this Meeting of Nobel Laureates are offered such an outstanding environment, year in, year out.”

Introduction



56th Lindau Meeting of Nobel Laureates Retrospects and Prospects 2006

INTRODUCTION

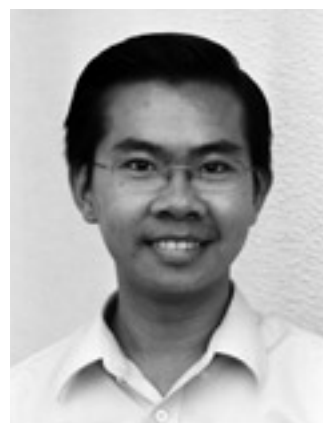
The 56th Meeting of Nobel Laureates took place from June 25th–30th, 2006 in Lindau on Lake Constance. It was the 18th Meeting of Winners of the Nobel Prize in Chemistry, and was the first time, other than the interdisciplinary conferences of 2000 and 2005, that Laureates in Physics and Medicine were also participating at such a meeting. At the invitation of the president of the Council for the Nobel Laureate Meetings in Lindau, Countess Sonja Bernadotte, 23 Nobel Laureates travelled to Lake Constance to discuss current scientific topics with 511 young scientists from 53 countries. Scientific talks, intimate discussions on specialist themes and personal meetings formed the focal point of the conference.

Responsible for the coordination and organisation of the scientific programme were Professor Astrid Gräslund (University of Stockholm and Secretary of the Nobel Committee for Chemistry) and Professor Wolfgang Lubitz (Max Planck Institute of Bioinorganic Chemistry, Mülheim). Both scientists are members of the Council for the Lindau Nobel Laureate Meetings. 511 highly gifted young scientists were selected from more than 11,000 applications and international nominations.

The up-and-coming scientists and Nobel Laureates made intensive use of the 22 talks, related seminars and round-table discussions. Social events such as the get-together with all the conference participants, the concert given by the UBS Verbier Festival Orchestra, and the boat trip to the Island of Mainau offered opportunities for personal dialogue. The idea behind the Lindau Meet-

ings of being a “window to the world”, and a venue for establishing networks reaching far beyond the five days on Lake Constance, could be experienced once more.

“ The Lindau Meeting of Nobel Laureates is a highlight of my stay in Germany. I am honored to be selected to attend this spiritually inspirational and scientifically fascinating meeting. I enjoyed the lectures, discussions with Laureates as well as the passion of science that we all share.



A great thank to my sponsor DAAD, International University Bremen and Prof. Ulrich Schwaneberg I hope there will be more attendants from Asia in the next meetings.

Tuck Seng Wong, Malaysia ”

To ensure the high quality and international reputation of the Lindau Nobel Laureate Meetings and to enhance it even further, the Council performs a three-stage evaluation process after every meeting.

The first step was to have the Council and the Foundation Board evaluate the Meeting internally after it ended. Feedback from the Nobel Laureates was the second step, followed by the evaluation of a questionnaire to survey the young researchers in attendance about their impressions, experiences and recommendations for improvement of the conference. The report at hands reflects the results of this evaluation process.

← Professor Hall talking to a group of young researchers from China.

Laureates & Young Scientists

Laureates

Young researchers of tomorrow

Selection criteria and selection process

Attended by 23 Nobel Laureates and 511 young scientists, the 18th Meeting of Nobel Laureates in Chemistry was the biggest and most international of its kind in the 56-year history of the meetings held on Lake Constance. This type of event is unique world-wide, and a showcase for presenting Germany as a European seat of science.

Laureates

The Nobel Laureates transform the meetings on Lake Constance into a platform for scientific excellence. The participation of four prize winners who only received their Nobel Prizes in 2005 also underlines the importance of the Lindau Meetings in the eyes of the science world, and is a tribute to the close collaboration between the German and Swedish members of the Council:

Professor Richard Schrock,

(Chemistry 2005)

“How to Reduce Dinitrogen to Ammonia”

Professor Roy J. Glauber,

(Physics 2005)

“100 Years of Light Quanta”

Professor Theodor W. Hänsch,

(Physics 2005)

“A Passion for Precision”

Professor John Hall,

(Physics 2005)

**“Increasing the Sensitivity of
Laser Spectroscopy”**

adjudged to have particularly enhanced the scientific programme. With this enrichment of the originally mono-thematic concept of the Meeting, the Council wants to take into account the increasingly interdisciplinary nature of the sciences. The ensuing dialogue extending beyond specialised boundaries that this stimulates is a genuine goal of the Lindau Nobel Laureate Meetings.

Young researchers of tomorrow

The Nobel Laureate Meetings in Germany are on the way to becoming the most significant conference in Europe for the world's scientific elite of tomorrow. 282 young researchers from Europe (138 from Germany), 124 young scientists from Asia, 93 from America, 3 from Africa and 9 promising talents from Oceania all took part in a scientific dialogue transcending national and cultural boundaries. They had all successfully completed an international, multi-stage selection process, during the course of which the best young scientists of tomorrow were chosen from 11,000 applicants. Numerous universities, foundations and international research organisations worldwide had nominated these extremely talented young people. These included for the first time the Foundation for Polish Science, the Slovenian Academy of Sciences and Arts, the European Science Foundation (ESF), the European Molecular Biology Organisation (EMBO), the Russian Founda-

The attendance of the Laureates in Physics and Medicine/Physiology at the Chemistry Meeting was



“ What I truly realized after the Lindau Meeting was the answer to one question:

What actually is science? In fact this is education, communication, commitment and great responsibility for the society. Sincere thanks to all of you – Nobel Laureates, students and organizers

that have made the Lindau Meeting one of the most inspiring moments in my life! I wish more students from developing countries will have the chance to participate in the future!

Rakina Yaneva, Bulgaria ”

“ I think this Lindau Meeting is rather successful and provide a golden chance for us to contact. Particularly, we have the opportunity to speak with Nobel Prize Winners directly.

One thing to be mentioned: in this year, the winners were mainly in biology and atmosphere

chemistry which are hot topics at present. Actually, chemistry covers a wide range of areas, I hope next time more detailed chemistry directions could be concerned.

Quian-Ming Wang, China ”



| Professor Ciechanover during his lecture on “Why our proteins have to die so we shall live”.



“ This meeting really opened my eyes about the broad aspect of science, where I found still a lot of things that I have never touched before. There, I could meet and discuss with the elites in science, the Nobel Laureates, even to sit with them at the same table. Their lectures and discus-

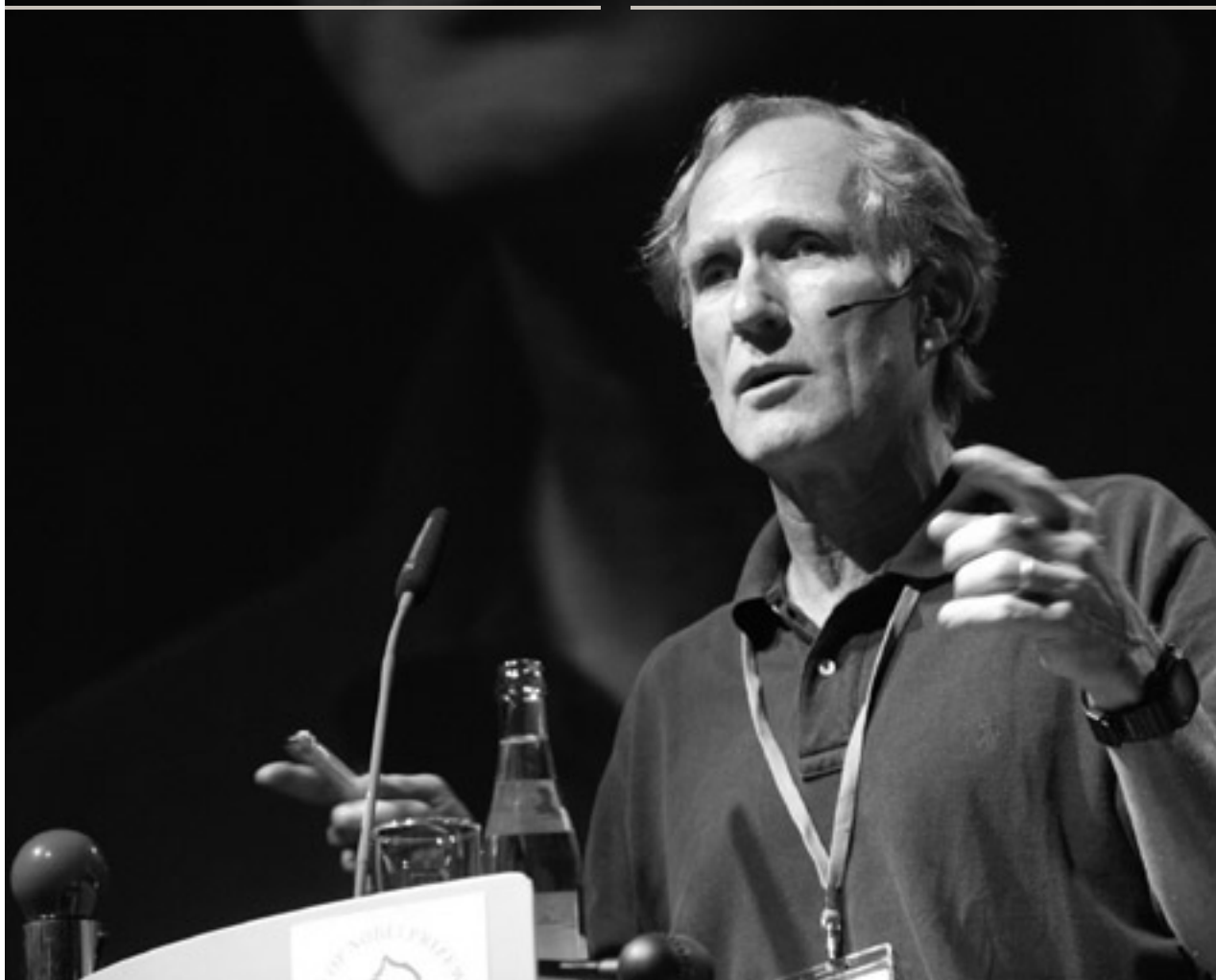
sions were encouraging me as a young scientist to follow what they have done even in a hard condition. I really enjoyed the banquet, the UBS concert and the splendid excursion to Mainau Island which are always in my memory. **Dr. Veinardi Suendo, Indonesia ”**

“ The meeting was a wonderful experience. Nobel Laureates have forged today's science, and sometimes we may think of them as super-humans.

Meeting them, one learns that they are superb scientists, but they are also humans as everyone else. A common denominator

among them was passion for their work, and you could see how the feeling spread over all of us as the meeting advanced. It left a great feeling, helping to refocus energy at the start of our research careers.

Dr. Dario Stacchiola, Argentina ”



| Professor Agre lecturing to young researchers on “Aquaporin water channels - a cellular plumbing system”.



tion for Basic Research and the Academies of Sciences of France, Hungary, the Czech Republic and Estonia. On behalf of the president of the Council, Dr. Rainer Gerold in particular is responsible for the ongoing development of standing cooperation relationships and the forming of new partnerships.

Fellows of the European Union's Marie Curie Programme also attended the Meeting for the very first time. Following the EU support for the interdisciplinary conference in 2005, the participation of these talented young researchers represents a good basis for future collaboration between Lindau and Brussels. The visit of the EU Commissioner for Science and Research, Dr. Janez Potočnik, demonstrates the esteem in which the Meetings are held by the EU Commission, and encourages the Council in its efforts to aspire to a long-term vested cooperation with the EU.

Selection criteria and selection process

The conscientious selection of young researchers to participate at the Nobel Laureate Meetings forms the basis for the success of the conference and its reputation in the worlds of science, industry and politics. Participants are selected in a two-stage process. First of all, the partners of the Lindau Council make a preselection from among the interested young scientists. To achieve this, the Council has created a binding and transparent framework for all nominating institutions with selection criteria that are to be applied internationally. The scientific leaders revise the criteria before every conference, thereby every year putting to the test the tough requirements which young scientists must satisfy all over the world.

The final selection was made centrally by the Council's Review Panel, which on this occasion was chaired by Professor Wolfgang Lubitz. Also on the panel were Professors Burkhard Fricke, Helmut

Sies and Jürgen Uhlenbusch, who were assisted by Andreas Schmidt. From the candidates who had been put forward, they selected 513 talented young researchers to experience at first hand the "Lindau dialogue" on Lake Constance, where they would be able to discuss their own research projects in personal conversations with the authorities in their fields, or gather valuable tips for their own fledgling scientific careers.

The application management database was optimised during preparation for the conference, making the assessment process more user-friendly.

The Council for the Lindau Nobel Laureate Meetings collaborates closely with leading institutions throughout the global scientific community to extend the internationalisation of the conference even further. This network undergoes continual and consistent expansion. Scientific institutions all over the world undertake to accept and abide by Lindau's strict selection criteria for the nomination of participants by signing cooperation agreements.

Prior to the 56th Nobel Laureate Meeting, the Council signed a letter of intent with the State Ministry for Research and Technology of the Republic of Indonesia and a memorandum of understanding with the Australian Academy of Science.

On the evening of June 25th, 2006, two further cooperation agreements were signed with the president of the Foundation for Polish Science, Professor Maciej Zylicz, and the president of the Slovenian Academy of the Sciences and Arts, Professor Boštjan Žekš. These top-ranking scientific institutions mark an intensification in the cooperation with the "young" member states from the EU's expansion phase in 2004. In future, national competitions for participation at the Lindau Meetings will be held in both countries to secure nominations from the most promising young researchers to travel to Lake Constance to attend the conference. Abidance by the strict Lindau selection criteria is an essential element of these cooperation agreements here as well.

Application and Selection Process

How did you hear about the 2006 Nobel Laureate Meeting in Chemistry?

Total: 428 [others: 56, does not apply: 2]

Partner Organisation: 62

Academic Institution: 233

Research & Corporate Institutions: 47

Newsletter: 7

Internet: 21

What was your impression of the selection process?

Total: 417 [does not apply: 0]

I was aware of the selection procedures: 183

I had professional feedback within the peer review: 28

I only received a confirmation from the Review Panel via the Internet: 206

* The great majority of young researchers heard about the Lindau Meeting from academic institutions (e.g. universities). Statements on the questionnaire also show that articles in *NATURE* and the *BMW Magazine* served as a source for some initial information about the Meeting.

The selection procedures seem to need more publicity: less than a half of the 417 young researchers answering were aware of them. At future Meetings, emphasis should be given to the professional feedback for young scientists within the peer review. Only 28 of the participating young scientists received feedback.

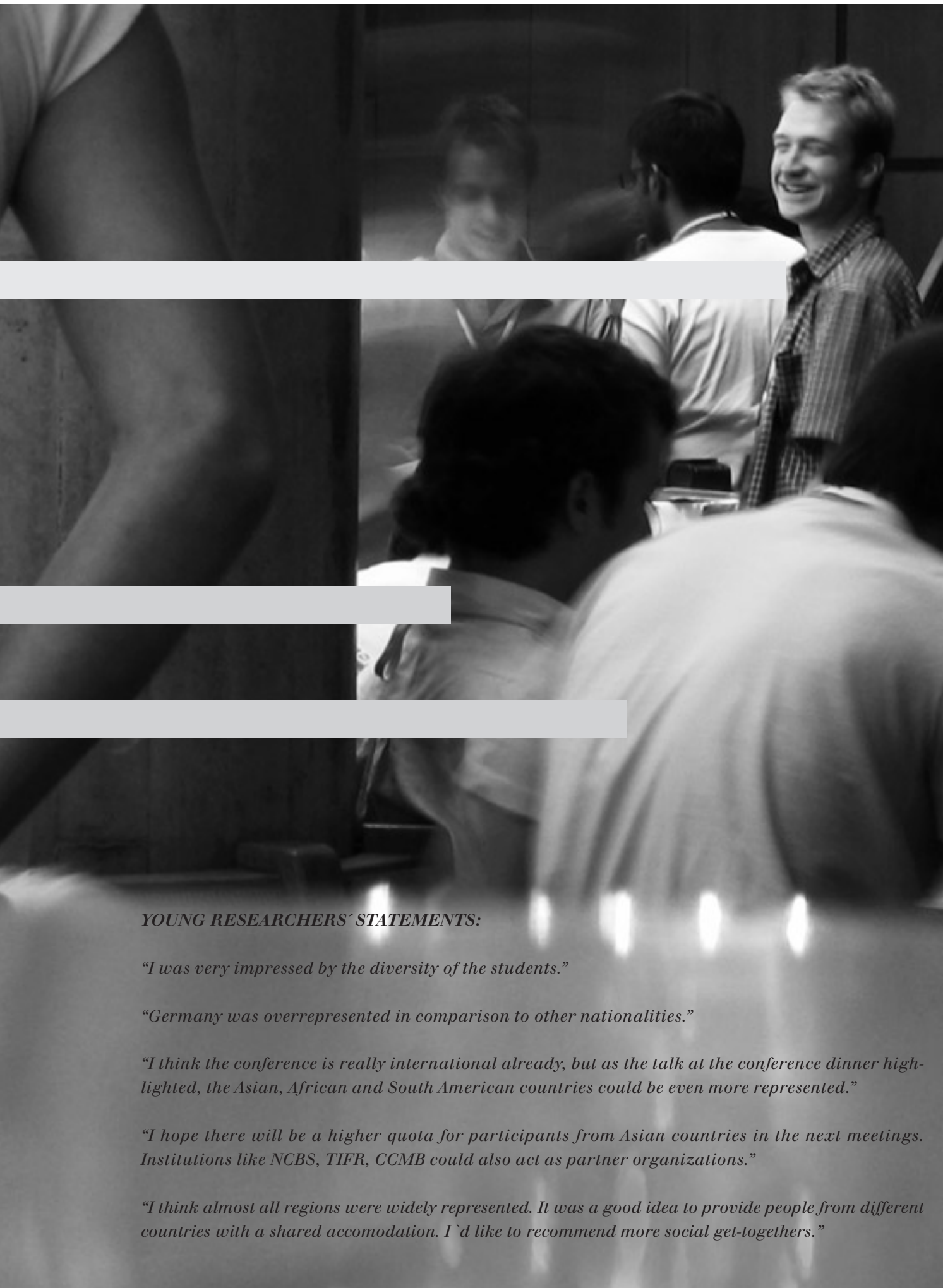
Participation figures for men and women

Total: 511



Women: 42% (213)

Men: 58% (298)



YOUNG RESEARCHERS' STATEMENTS:

"I was very impressed by the diversity of the students."

"Germany was overrepresented in comparison to other nationalities."

"I think the conference is really international already, but as the talk at the conference dinner highlighted, the Asian, African and South American countries could be even more represented."

"I hope there will be a higher quota for participants from Asian countries in the next meetings. Institutions like NCBS, TIFR, CCMB could also act as partner organizations."

"I think almost all regions were widely represented. It was a good idea to provide people from different countries with a shared accomodation. I`d like to recommend more social get-togethers."



Programme

Opening ceremony
Scientific programme
Social programme
Farewell





The meeting was an extra-ordinary opportunity to meet with such a huge concentration of minds and people in the front of science. It was a great honour for me and gave me a great challenge and aspiration for my coming research carrier.

Abdel-Kareem Azab, Israel

The Lindau Meeting was a fascinating event, where young starting researches had an opportunity to meet personalities with great experience in their field of science. This meeting was a huge stimulation for my professional life.

Michal Cesnek, Czech Republic

The Lindau Meeting was quite a unique experience for me and definitely will be one of the most wonderful moments in my memory. I was very excited to meet so many Nobel Laureates and impressed deeply by their passion, intense curiosity and interest for science. I also really enjoyed the communication with other young researchers from all around the world, regardless of geographic borders.

Junfeng Liu, China



PROGRAMME

Scientific excellence and international networking are the Lindau credo. The two main parts of the Nobel Laureate Meeting agenda are the scientific and social programmes. These represent the incomparable character of the Lindau Dialogue and complement one another.

The official opening ceremony of the Meeting served as a prelude this year, as well.

Opening ceremony

The perception of the Meetings as a guiding light for Europe as a seat of science and industry is reflected in the list of speakers at the official opening ceremony of the 56th Meeting of Nobel Laureates.

The EU Commissioner for Science and Research, Dr. Janez Potočnik, and the Federal Minister of Education and Research, Dr. Annette Schavan, together with the Bavarian State Minister of Science, Research and the Arts, Dr. Thomas Goppel, clearly demonstrated with their presence in Lindau the high value of the meeting, particularly with regard to the political efforts being made to make Europe the most competitive and dynamic knowledge-based economy in the world by 2010.

During the course of the opening ceremony, Professor Ernst-Ludwig Winnacker, president of the German Research Foundation (DFG) from 1998 to 2006, and from 2007 Secretary General of the European Research Council, was admitted to the Honorary Senate of the Foundation Lindau Nobelprizewinners Meetings at Lake Constance.

The accolade was awarded in recognition of the extraordinary efforts made by Professor Winnacker towards internationalisation and the promotion of excellence in the field of science, goals also pursued by the Nobel Laureate Meetings.

Countess Sonja Bernadotte, president of the Council, opened the conference. She underlined the Council's aim to invite the "most promising young scientists from their respective disciplines to participate at the Lindau Nobel Laureate Meetings" and called this "fostering the elite in the best sense". Countess Bernadotte pointed out that the trusting collaboration with science academies, research cen-





I found the meeting to be excellent, not just because of the student contact, but for the opportunity for me to listen to such wonderful lectures from other laureates. The planning, weather, and venue were also spectacular. We had a wonderful time.

Richard R. Schrock, Chemistry 2005



tres, leading universities and ministries concerned with education, research and science, as well as institutional partners and patrons, represents the basis for achieving this goal.

The EU Commissioner responsible for science and research, Dr. Janez Potočnik, stressed the importance of research at the highest level for maintaining European competitiveness. The Lindau Meetings can make an important contribution in this respect. “It is good that these meetings take place in Europe, despite a decline in Nobel Prizes granted to research ‘made in Europe’. I take this as an additional responsibility for us, policy makers at European and national level, to foster excellence in European research.”

Federal Minister Dr. Annette Schavan called the Lindau Meetings an “outstanding business card for Germany as a seat of research and education, which radiate throughout the world”. At the same time, she criticised colleges and research institutions for failing to succeed in adequately integrating women into research.

The Bavarian State Minister of Science, Research and the Arts, Dr. Thomas Goppel, emphasised that “excellent results in research require excellent conditions”, as only so can the inherent potential be exploited to the full. “Such excellent conditions are offered to the visitors to this conference year after year”, said Goppel as a representative of the Bavarian state government.

Scientific programme

The scientific part of the programme began on Monday, 26th June, and continued through to Thursday, June 29th. The three-stage concept which had already proven a success at the interdisciplinary meeting of Nobel Laureates in 2005 was taken over for the Meeting of Nobel Laureates in Chemistry. In addition to the introductory lectures given by the Laureates in the mornings, and the discussions between the Laureates and young scientists in the afternoons, consideration was given to the increasingly interdisciplinary nature of the sciences with a cross-discipline panel discussion on Wednesday.

The scientific programme began every morning with 30-minute talks given by the Laureates. The 2005 Nobel Laureate in Chemistry, Professor Schrock, spoke on the first day of the scientific programme. The lectures given by the three 2005 Nobel Laureates in Physics – Professor Hänsch, Professor Hall and Professor Glauber – on Tuesday morning demonstrated the interdisciplinary nature of the conference to all participants.

The topics addressed in the morning talks were covered in greater depth in the afternoons by the Laureates in seminar-like discussions with the young scientists. These 2-hour events formed a stage for direct scientific exchange between the Nobel Laureates and the researchers of tomorrow. The ensuing discussions frequently diverged from the actual subject of the lectures, thereby proving once more the proverbial openness of these encounters.



“ The 56th Meeting of Nobel Laureates in Lindau exceeded all my expectations of a scientific meeting. This meeting was unlike any I have ever attended and provided a tremendous opportunity for interaction with some of the most brilliant young minds in Chemistry from all over the world as well as with some of Nobel Laureates in Chemistry. The meeting as a whole, in my opinion, leaves nothing more to be desired of a scientific forum. **Nadale Downer, Jamaica** ”

Members of the interdisciplinary panel who discussed the topic “Energy and Global Warming” included the Nobel Laureates in Chemistry Professor Paul Crutzen (1995 Nobel Prize), Professor Roald Hoffmann (1981), Professor Walter Kohn (1998), Professor Rudolph Marcus (1992) and Professor Sherwood Rowland (1995), together with the Nobel Laureate in Physics, Professor Roy Glauber (2005). Professors Sherwood Rowland and Paul Crutzen (together with Mario Molina) received their Nobel Prize in Chemistry in 1995 for their work on atmospheric chemistry, particularly concerning the formation and decomposition of ozone.

Professor Crutzen outlined his proposal for eliminating global warming, conceived as a makeshift solution, which would involve blowing millions of tons of sulphur in the form of minute sulphate particles into the upper layers of the atmosphere to counteract the greenhouse effect. In an essay in the technical periodical “Climatic Change” (8/2006), he presented his thoughts to the broad science world, and in doing so triggered a lively debate.

During the panel discussion, Professor Hoffmann expressed his “anxiety about how scientific data is perceived in political discussions”, and he urged scientists to “take an active role in the political process”. Professor Walter Kohn pointed out that “only solar energy will be available forever”, and he issued this appeal to the young researchers present: “We have to act now and not wait until it is too late.”

An active discussion developed following the introductory statements given by the participating Nobel Laureates. Moderated by Professor Gräslund and Professor Lubitz, the scientific chairpersons of the 56th Nobel Laureate Meeting, the young researchers were called upon to take an active part in the discussion.

The question from one young scientist as to how the energy and environment policy demands made by scientists can receive more attention among the broad general public and in politics demonstrates the social dimension of science that was discussed in Lindau. It is the consideration that is given to social and political correlations which has been a distinguishing feature of the Lindau Dialogue since 1951.

The debate about solar energy was continued following the panel discussion with the presentation of the documentary “The Power of the Sun”. The two Nobel Laureates Walter Kohn and Alan Heeger played a decisive role in the realisation of this film.

With 22 lectures and 24 discussion groups, the 56th Nobel Laureate Meeting on Lake Constance offered a broad cross-section of current scientific topics being discussed by the greatest researchers of our time. The positive assessments that emerged from the evaluation of the scientific programme show that the examination of topical questions from their own fields of research aroused great interest among the young researchers, and met with a positive reception.



“ The Lindau Meeting resembles an encouragement workshop. It carries you away from your scientific everyday problems and makes you forget disheartened thoughts. Instead, the reason and joy of becoming and being a scientist return to your mind.

Henning Friedrich, Germany ”



I have been thrilled by my first opportunity to attend a Lindau Meeting as a Nobel Laureate. Even as a physicist among chemists, I found this meeting most stimulating and rewarding. From many excellent talks I learned a lot about recent advances in different fields of chemistry. More importantly, I enjoyed countless exciting discussions with talented students and young researchers from all over the world. Last but not least I am grateful for the warm hospitality of Countess Bettina Bernadotte and her family.

Theodor W. Hänsch, Physics 2005



“ This week in Lindau gave me a deep insight into the world of natural science. Being just at the beginning of my studies, the Meeting of the Nobel Laureates was an unique and inspiring experience. It was enriching to meet so many young scientists from all over the world. I was

particularly impressed by the talks about the ATPase presented by Prof. Sir J. Walker and the talk about intracellular protein degradation by Prof. A. Ciechanover. Thanks for the opportunity to participate in this great scientific and social event. **Merle Hantsche, Germany** ”

“ The Meeting of Nobel Laureates in Lindau was a fantastic experience and I feel fortunate to have had the chance to participate. It was really inspiring to meet the Laureates and young researchers from all over the world. I was encouraged and motivated by the scientific knowledge and per-

sonal experience that the Nobel Laureates shared with us. Above all, it was great hearing their dedication, passion and enthusiasm for science. The beauty of Lindau and the social and cultural events also contributed to a marvellous week. **Dr. Kaisa Haglund, Sweden** ”



Social programme

Together with the scientific part of the Nobel Laureate Meetings, the social programme is an important element of the Lindau Dialogue. These events make a substantial contribution to the frequently quoted “spirit of Lindau” by making it easier for the participants to become acquainted with one another. The 56th Meeting of Nobel Laureates on Lake Constance again offered the Laureates and young scientists many such opportunities.

The traditional “Get-Together Party” on Monday evening in the Inselhalle congress hall opened the social programme. All those attending the conference were invited by the City of Lindau and the Foundation Lindau Nobelprizewinners Meetings at Lake Constance to a buffet and evening of music. People from more than 53 countries crossed national and cultural boundaries to become personally acquainted for a week of dialogue on Lake Constance.

The highlight of the evening was the talk given by Professor Hans Rosling, in which he rejected the division of the world into developed industrial states and developing countries and demonstrated that a more differentiated view of global developments is necessary. Presented as it was to an audience of conference participants from 53 countries and regions, this thesis met with wide approval, as was proved by the numerous table conversations on the subject that followed.

As in previous years, UBS AG showed its affiliation with the conference and its goals. The UBS Verbier Festival Orchestra once more gave a guest concert in Lindau’s municipal theatre, which was followed by a reception hosted by Jacob Bjorheim, the Managing Director of UBS Wealth Management. Works by Joseph Haydn, Wolfgang Amadeus Mozart and Igor Strawinsky were played under the direction of the violinist and conductor, Maestro Dmitry Sitkovetsky. This cultural offering met with great interest among the young researchers. The UBS Verbier Festival Orchestra and the Lindau Nobel Laureate Meetings on Lake Constance have one ideal in common: To recognise excellence and to promote it from an early stage.

In addition to the events on the social programme offered by the Council, various national delegations provided opportunities for an uncomplicated exchange of views and ideas outside of the conference venue in Lindau’s Inselhalle. For example, young American researchers invited representatives from other countries to have lunch together. The tips supplied by the organisers about which restaurants and bars were showing football matches from the World Cup, which was being hosted in Germany at the same time, also presented opportunities for getting to know one another.



Farewell

The 56th Nobel Laureate Meeting on Lake Constance closed with a boat trip for all the conference participants to the Island of Mainau, where Countess Sonja Bernadotte bade farewell to the Laureates and scientists of tomorrow. She expressed her hope that some of the young researchers would return to Lake Constance as Nobel Laureates.

On behalf of all the 23 Nobel Laureates present, Professor Schrock, who was awarded the Nobel Prize in 2005, addressed the gifted and promising researchers: "Success is born of specialist knowledge and personality. At the Nobel Laureate Meetings, knowledge is imparted and discussed in an international environment. Here, cultural dialogue is experienced beyond national and cultural boundaries. This makes the conference a unique occasion for the scientists of tomorrow," said Professor Schrock.

As spokesperson for the young scientists, chemistry student Grace Kinunda from Tanzania thanked not only the Nobel Laureates and the patrons of the conference, but also her professor at the University of Dar es Salaam, who had drawn her attention to the possibility of applying to attend. "Thanks to the suggestions made by the Nobel Laureates, I have come a long way towards achieving my personal goal of developing an environmentally acceptable green chemistry." Grace Kinunda expressed the hope that in future more scientists from Africa would find their way to Lindau.

| Grace Kinunda from Tanzania at the farewell ceremony.

During the farewell ceremony, Countess Sonja Bernadotte announced that Professor Franz Knöpfle is to be admitted to the Honorary Senate of the Lennart Bernadotte Foundation. This honour is in recognition of the dedication he has shown in developing the Nobel Laureate Meetings into a venue for encounters between today's elite of science and the world's most promising scientists of tomorrow. He will be retiring from the Council in autumn 2006 for age reasons.

The 56th Nobel Laureate Meeting in Lindau stands for a dialogue that transgresses cultural and national boundaries and promotes the development of new long-term networks between the best scientists. To ensure that these networks remain productive beyond the time spent on Lake Constance is the challenge that is to be faced. A first step has been accomplished through the setting up of a database of all the participants. In future, the Council will therefore also be focussing on establishing an active alumni network for the benefit of scientific progress.

Together with the Web site as a virtual conference venue, the Lindau Dialogue is developing into that "window to the world", which is how their visionary co-founder, Count Lennart Bernadotte, viewed the Nobel Laureate Meetings.

Academic Credentials of the Meeting

Please assess the following parts of the programme:

PLENARY LECTURES (455)



STUDENT DISCUSSIONS WITH LAUREATES (AFTERNOON) (444 + 7 No Answer)



PANEL DISCUSSION "ENERGY AND GLOBAL WARMING" (436 + 8 N.A.)



INTERACTION WITH OTHER PARTICIPANTS DURING THE MEETING (440 + 2 N.A.)



* The very good ratings for the plenary lectures in the mornings and for the student discussions with the Laureates in the afternoons demonstrate the scientific success of the 56th Meeting of Nobel Laureates. The panel discussion "Energy and Global Warming" also received good ratings, though to a lesser extent than the lectures and discussions. Statements from the questionnaires make it clear that the non-controversial manner of the panel discussion led to this evaluation.

The assessment of the conceptual orientation of the meeting shows an overall satisfaction with the concept. The slightly higher ratings for the answers "not sufficiently international", "too non-controversial" panels and "too little" student involvement (compared to "too general" for the interdisciplinary character and "too broad" for the selection of topics) might be interpreted as a demand for greater internationalisation of the Meeting, more scientific dialogue that enhances science, and that more scope should be given to the opinions of the young scientists during the discussions.

How do you assess the conceptual orientation of the meeting?

INTERNATIONALITY (440 + 2 N.A.)



INTERDISCIPLINARY CHARACTER (431 + 4 N.A.)



SELECTION OF TOPICS FOR PANELS (416 + 23 N.A.)



PANELS (402 + 35 N.A.)



STUDENT INVOLVEMENT (429 + 6 N.A.)



YOUNG RESEARCHERS' STATEMENTS:

"The talks involving societal issues were more unique and gave Lindau character about more typical conferences."

"I received a big 'push' in motivation, enthusiastic about the talks of the laureates, even if nearly none was connected to my research subject."

"It would be useful and interesting if the students would have an option to present their work in the form of posters. This would encourage more discussions between the students and would be also helpful for the Laureates to get to know the work of the students."

"Everyone agreed with each other on the panel, and it was difficult to participate. Small groups of students interacting with the Nobel Laureates would have worked better, if possible."

Organisation of the Meeting

Please assess the following parts of the programme

OVERALL ORGANISATION (446 + 2 N.A.)



REGISTRATION (445 + 2 N.A.)



INTERNET CAFÉ AND WLAN (405 + 36 N.A.)



* Overall, the organisation of the Meeting received very good ratings. Three aspects deserve special attention: accomodation, Internet café/WLAN and the homepage. The evaluation showed that there seem to be two reasons for the high proportion of accomodation rankings in the categories “satisfactory” (154) and “unsatisfactory” (27): that some students had to stay in hotels located off the island, which meant they had to return at night using a bus service that ended at around 10.30 pm. Another group of critics did mention their surprise that they had to share a room (or even a bed) with another student they did not know.

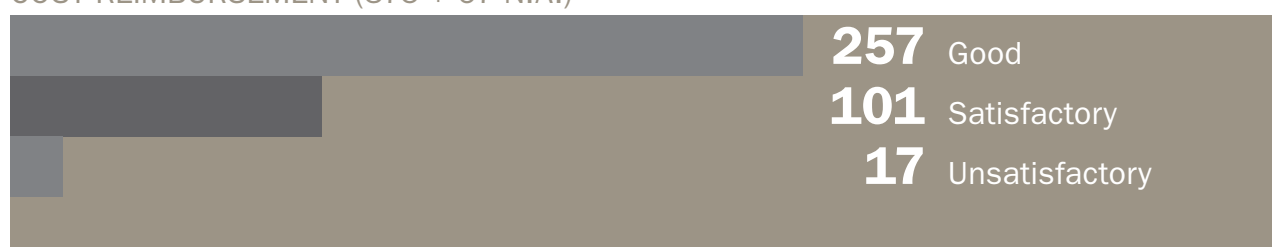
Main criticism concerning the Internet café/WLAN in the Inselhalle referred to the fact that there were not enough computers for more than 500 young researchers. Some of them either did not know about the WLAN hotspot at the conference venue or experienced some difficulties in logging on.

The homepage is used by participants as the point of entry for their visit to Lindau, which explains the very high expectations connected with it. Students often indicated that they did not find the information they were looking for (address of the Inselhalle, information about hotels, etc.). Some students said that the online application process was too complicated.

Regarding the question as to what services they missed, participants responded with two major requests: free coffee and water during the breaks, and the possibility of a warm and cheap lunch.

 HOMEPAGE (433 + 14 N.A.)


COST REIMBURSEMENT (375 + 67 N.A.)



ACCOMMODATION (439 + 8 N.A.)



YOUNG RESEARCHERS' STATEMENTS:

"Every service provided is so good, especially for registration efficiency, internet access, ear-phone for discussions, anything seemed wonderful."

"I missed the possibility to have some cheap warm meals."

"The meeting was really great! The air condition was really appreciated."

"Having to pay for coffee at morning break was unacceptable to me, as was the fact that no other refreshment (i.e. food) were provided in this break. I have never been to a conference where lunch was not included on the registration let alone a simple cup of coffee!"

"1) Only 1 Internet Explorer program was installed on computers in internet café, installation at least of Microsoft Office is advisable. 2) Timetable of panels should be kept more strictly. 3) Social and cultural program may be expanded."

"The connections to the outside hotels via bus are not very good in the evenings after social events."



I would praise the glorious tradition of the Lindau Meeting over a half century. The dialogue with the emerging scientists from all over the world was truly impressive. They are all highly motivated. I am certain that they will work together in leading science and technology of this century.

Ryoji Noyori, Chemistry 2001

Benefactors and Donors

The 2006 Meeting of Nobel Laureates in Chemistry was made possible by active private-public partnerships and generous support from scientific, commercial and political institutions. Without this patronage, it would not be possible to assure the future of the Lindau Nobel Laureate Meetings and its continuing development.



“ It was a nice and new experience. The opportunity to meet the Nobel Laureates and to exchange different points of view was fantastic. Apart from anything else, I was made richer through the chance to get to know students or young researchers with same interests.

Ignacio Javier Núñez Zorriquetá, Spain ”

A donation in kind from EnBW Energie Baden Württemberg AG meant that a new air-conditioning system could be installed at the venue of the conference, the Inselhalle, in good time before the 56th Nobel Laureate Meeting opened. Having made a donation to the Foundation in 2005, the EnBW board of directors responded to a request by the Council and the Foundation by agreeing to take over the financing of the modernisation of the Inselhalle. This commitment is a classic example of private-public partnership in these times of public budget constraints, and a response to the 2005 evaluation report in which the Laureates and young researchers had criticised in equal measure the lack of air conditioning.

The Foundation Lindau Nobelprizewinners Meetings at Lake Constance has taken a big step towards its goal of assuring the financial security of future conferences. The donation made by Deutsche Bank AG marks the involvement of another German global player in developing the conference into the most important globally-orientated event in Europe for the scientists of tomorrow.

The cooperation agreement between the Council and the German Academy of Technological Sciences, “acatech”, was likewise connected with support for a project. The president of “acatech”, Professor Joachim Milberg, is also a member of the Honorary Senate of the Foundation. The purpose of the collaboration with Germany’s acknowledged institution for technological sciences is to integrate application-orientated research and technology in the Lindau dialogue.

Ecoscientia, a Swiss foundation that promotes special affairs in education and science, is another renowned institution that could be won over in support and advancement of the Lindau Meetings.

Responsibility for initiating and developing such cooperation agreements and donations has been assigned by Countess Sonja Bernadotte to Professor Wolfgang Schürer, the chairman of the Board of the Foundation Lindau Nobelprizewinners Meetings at Lake Constance and a member of the Council. He is actively assisted by Senior Research Associate Dr. Urs V. Arnold and Nikolaus Turner, member of the Board of the Foundation and the Council’s Treasurer. Taking into account the Second Lindau Meeting in Economic Sciences that was held in August, 2006, a total of 180 working days were spent on these activities.



| Young researchers and Professor Rowland during the “Get-Together Party” on Monday night.

Thanks to the support given by the Federal Ministry of Education and Research (Federal Minister Dr. Annette Schavan) and the Robert Bosch Foundation (Attorney Dieter Berg, Chairman of the Executive Board, Dr. Ingrid Hamm, Member of the Executive Board; Dr. Ingrid Wüning, Director for Science in Society), it has been possible to develop the Nobel Laureate Meeting into a platform for the exchange of knowledge between the greatest scientists of today and the most promising talents of tomorrow. Together with subsidies from the Bavarian State Ministry of Science, Research and the Arts (State Minister Dr. Thomas Goppel and Assistant Secretary Dr. Georg Brun), the German Research Community (President Professor Ernst-Ludwig Winnacker and Cora Laforet, head of the Department for International Cooperation), the Federation of Donors to German Science (Stifterverband für die Deutsche Wissenschaft), the Stiftung van Meeteren and the Klaus Tschira Foundation gGmbH, they made a decisive contribution to the success of the 56th Nobel Laureate Meeting.

The allocated financial support permitted a strict selection process that was exclusively orientated to the selection criteria, and not to the monetary resources of the young researchers.

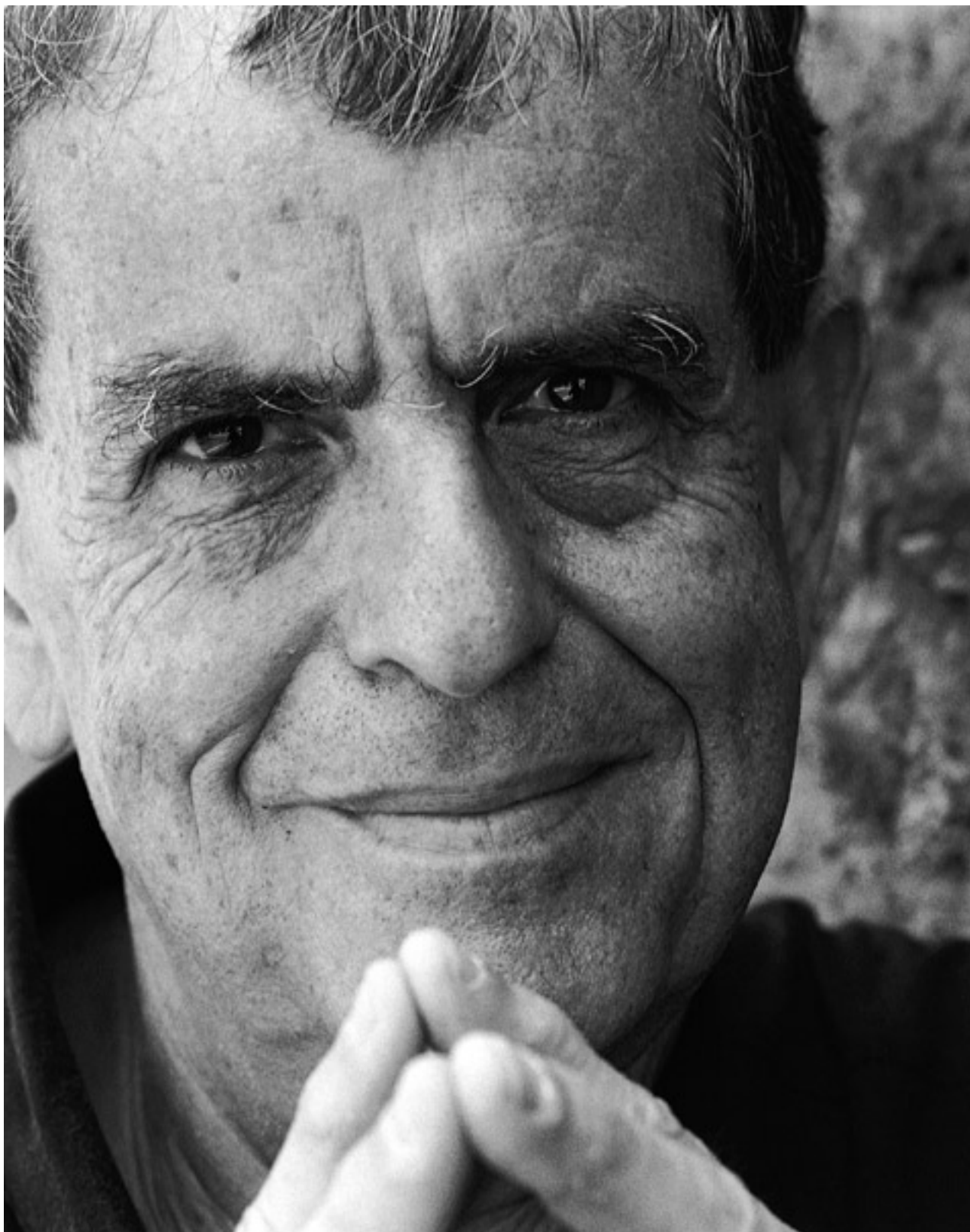
The criteria assured the high standard of the conference, which is an essential prerequisite for its positive image in the science world. The donations also meant that the international character of the circle of participants could be enhanced even further.

The support received from the European Commission (EU Commissioner for Science and Research, Dr. Janez Potočnik) reached new heights with the attendance of a delegation of fellows of the Marie Curie Programme, representing a solid basis for future cooperation.

The International Lake Constance Conference (Rita Fuhrer, Chairperson of the IBK in 2006) provided substantial support for the Web site of the Meeting of Nobel Laureates in Chemistry. Together with the Free State of Bavaria, it enabled young budding scientists world-wide to follow selected conference lectures over the Internet.

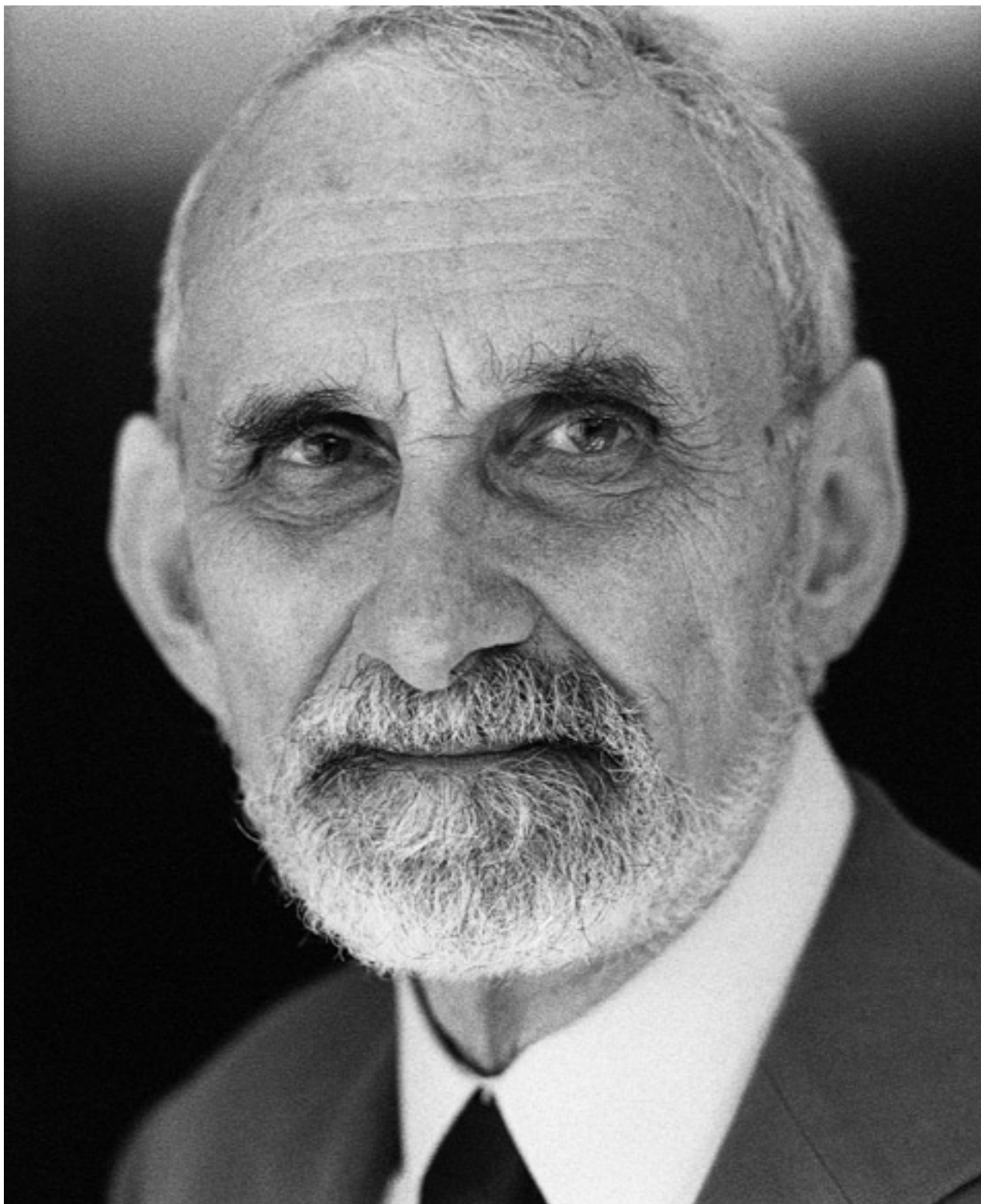
Crucial to the professional organisation of the Meeting were also donations in kind. Flight arrangements made through Lufthansa were greatly appreciated by the Laureates. The limousine service provided by AUDI AG for the Nobel Laureates pleasantly shortened the distance between Hotel Bad Schachen and the Inselhalle. MAN AG provided a coach and driver, and the Laureates made intensive use of this service. Other examples are the acoustic equipment made available in the Inselhalle by Sennheiser electronic GmbH and Co. KG and the mail delivery vouchers provided by Deutsche Post AG/ DHL.

The success of the 56th Meeting of Nobel Laureates in Lindau is to be attributed to a significant degree to the hard work performed by the Council members and the members of the Foundation, who provided their services during the course of the preparation, realisation and assurance of this unique event on a pro bono basis.



Climbing through the 2006 Lindau Meeting of Nobel Laureates in Chemistry with students from all over the world, brought us to an yet another summit of success. The challenges posed by the students are becoming more difficult as time passes, and their ability to see the future problems becomes sharper. Rather than teaching, I found myself in many occasions being taught, and in many other occasions discussing complex issues among equals. Surprisingly (or maybe not) was the high emphasis and interest of the students in bioethical problems that we are now facing in a growing pace. The students attending are clearly not only the best in science, but represent a high degree of societal and personal conscience.

Aaron Ciechanover, Chemistry 2004



I enjoyed the meeting in Lindau very much. I hope the students enjoyed it as much as I did. I think the change to bring in students from all over the world is a very good thing. It does more to promote science globally both by providing an enriching experience to the best students across the globe and by creating contacts between individuals in nations separated by great distances – contacts that may ripen and grow and last a lifetime. I like the afternoon sessions. It worked out particularly well for me as my afternoon session was on the same day as my morning lecture so that the students still remembered the lecture and had the opportunity to probe more deeply. I found from the questions and comments in the afternoon sessions that often members of the audience knew things that I didn't. I always enjoy learning something.

Robert F. Curl Jr., Chemistry 1996

Communication and Media Relations



“ The Lindau Meeting was a great event in my life. Where else one could find so much wisdom and knowledge

as well as love and fun around? Young happy faces, laughing sparks in the Nobel Laureates' eyes, new friends from different parts of the world, exciting discussions and long night walks near the Lake Constance under the sky full of stars - I will never forget it. And above all - the spirit of science and friendship, the spirit of the Lindau Meetings. Thank you!

Dmitry V. Filyukov, Russia ”

“ The Lindau Meeting was an extraordinary experience. Noticing that other young researchers as well as the Laureates have the same minor and major difficulty at the beginning of their career give me new motivation for my Ph.D. thesis. I will bear this meeting my whole life in my mind.

Sabine Meis, Germany ”



The publicity work for the 56th Meeting of Nobel Laureates stood under the influence of football's World Cup, which was taking place in Germany at the same time. Despite the strong focus on events all around the stadiums, the conference generated a substantial media echo. Responsible for this were 40 accredited journalists from Germany, Russia, China, Sweden, Malaysia and Bangladesh. Here are some examples:

The Malaysian TV channel TV3 interviewed young researchers in Lindau for their prime-time news show.

A correspondent from the state Chinese news agency Xinhua accompanied the entire conference and sent a series of reports to Beijing.

Newton Magazine interviewed eight Laureates in Lindau.

The Russian science journalist Viola Egikova reported from the conference for the reputable journal Mospravda.

Thomas Ellerbeck, member and speaker of the Council and member of the Board of the Foundation, was responsible for media coordination. He was actively assisted by Science&Media in Munich and Christian Rapp in the Lindau office.

For the first time, a gallery installation of Laureates was created in Lindau within the framework of the media communication activities. All the Nobel Laureates who attended the 56th Meeting were introduced to the people of Lindau and the guests to the conference with larger than life portraits from Peter Badge's book "Nobel Laureates in Portraits". The prominent positioning of the gallery on the approach to the bridge over the lake assured high visibility of the conference in the townscape, providing media and participants alike with impressive pictorial motifs. The project was organised together with Pro Lindau Marketing GmbH.

The distribution list compiled the previous year with the addresses of all the chief editors of the German daily newspapers again proved to be a practical tool when issuing press releases. Particularly in the case of regional newspapers that do not have pages dedicated to science topics, supplying the names of participants at the conference

PRESS REVIEW

“Even before they left for Lindau Germany, the five young persons from Tamil Nadu were excited. The feeling never waned during their stay at Lindau, where some of the world’s greatest minds gathered to discuss and exchange their expertise built over years of research activity.”

The Hindu, India, 31 July 2006

“Although 2006 was devoted to chemistry, the Nobel Laureates in Lindau were joined not only by the chemist Richard Schrock, but also by the physicists Roy Glauber, Theodor Hänsch and John Hall. Incidentally, this gave the meeting that extra spice, as modern research is able to develop even more intensively where the sciences converge. (...) Despite this, the most vital aspect of Lindau is the ‘luxury of people interacting with one another’.”

Mospravda, Russia, 1 August 2006

“Talking shop at the highest level. – Perhaps the reason why the tête à tête between the world’s best researchers and students and doctoral students from Europe, the USA and Asia enjoys such an outstanding reputation is that Germany last year itself produced a Nobel Laureate, physicist Theodor Hänsch from Munich.”

Süddeutsche Zeitung, Germany, 24 June 2006

“This globally unique meeting is a venue for the transfer of knowledge between the greatest researchers of our time and selected young scientists from all over the world.”

Die Welt, Germany, 26 June 2006

“The world as guests of scientific excellence”

VDI Nachrichten, Germany, 7 July 2006

“Opening of the Nobel Laureate Forum – Chinese students in dialogue with the scientific elite”

Xinhua News Agency, China, 25 June 2006

“Lindau: A Nobel Conference – An unusual conference on Lake Constance in the Swiss Alps gives students a once-in-a-lifetime opportunity to interact casually with Nobel laureates. Students return home with new insights into everything from scientific discovery to the meaning of life.”

Chemistry, USA, Winter 2006

“Why don’t they listen? – Scientists at the Nobel Laureate Meeting in Lindau urge politicians to take note.”

Handelsblatt, Germany, 29 June 2006

“With participants from 53 countries, this year’s Nobel Laureate Meeting in Lindau has an even more international character than the World Cup, but instead of football, the visitors prefer studying formulas.”

Ärztezeitung, Germany, 28 June 2006

“Lindau has indeed become a true window to bring two generations of most talented scientists to shape the future world.”

Energy & Power, Bangladesh, 16 July 2006

“Lindau comes right after Stockholm. – The Lindau Meeting of Nobel Laureates seeks to bring together the world’s best next-generation scientists and the brightest minds of our time.”

Bild der Wissenschaft, Germany, July 2006



| Professor Michel being interviewed at the Inselhalle.



from the local catchment area offers an interesting means of reporting on the Nobel Laureate Meetings in Lindau.

German embassies abroad, together with official state representations in Berlin, were incorporated in the press activities this year as well, and were supplied with information about the participating young scientists from their respective countries. The reaction from the embassies was extremely encouraging, and will be an incentive for the media relations team to broaden its media horizons even further in future.

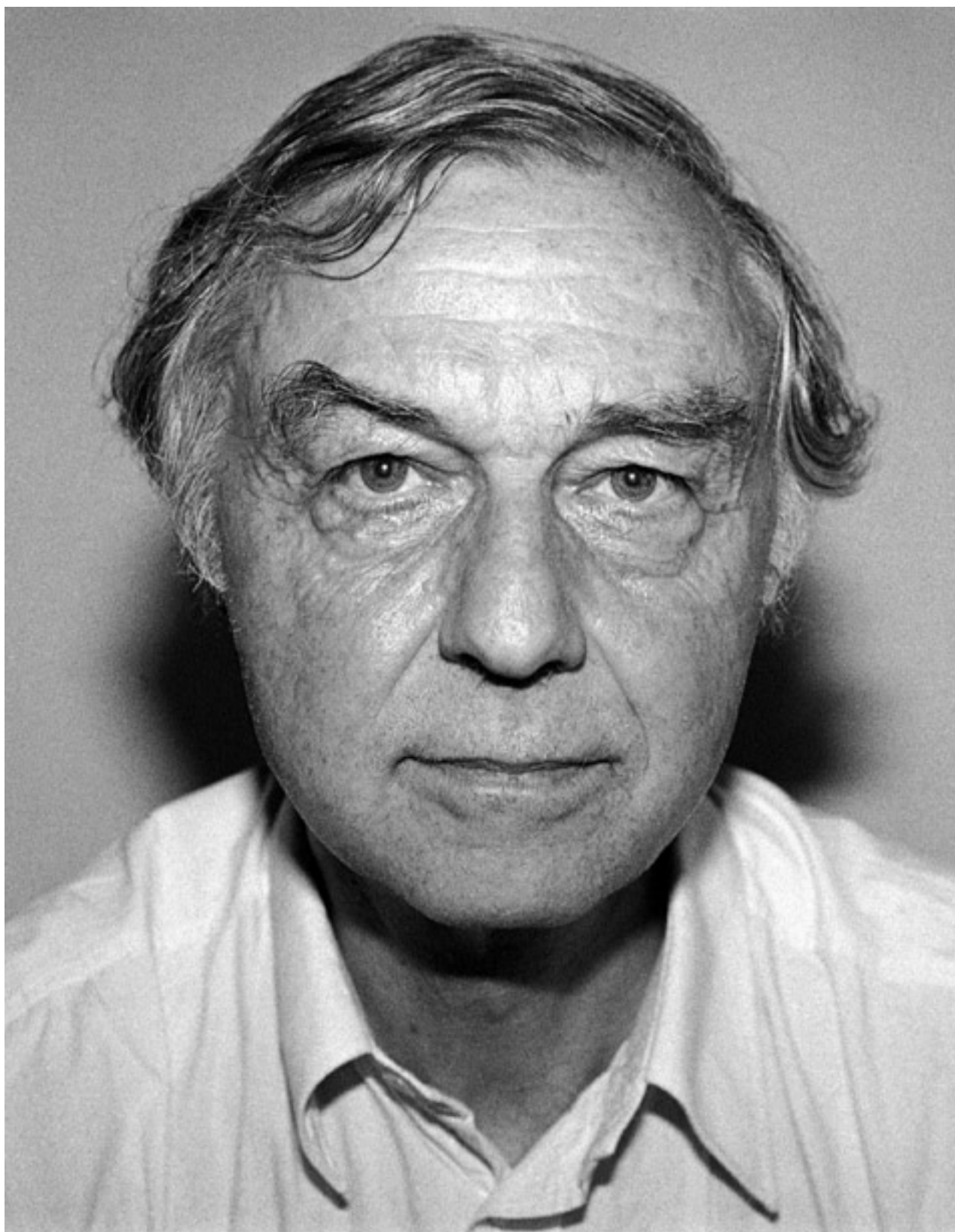
In cooperation with BundB-Medien, special attention was paid for the very first time to providing radio stations with information about the conference. BundB-Medien produced ready-for-broadcast articles and placed them at the disposal of the radio channels. In addition to this, an Internet audio service provided a contemporary source of access shortly after the opening of the conference on June 25th to statements given by participants and guests of honour (including Countess Sonja Bernadotte, former German President Herzog and Federal Minister Schavan), so that they could be reported upon almost as they happened. Broadcasting stations were notified about this service in advance and were able to download suitable sound bites from an Internet page.

After the Meeting was over, the radio reports and statements were made available to interested listeners and Internet users in the new radio section of the Web site www.lindau-nobel.de. The transmitted radio reports and statements reached more than one million listeners, an audience that is growing with the online availability.

Thanks to the support given by the International Lake Constance Conference (IBK) and the Free State of Bavaria, enthusiasts world-wide were able to follow the 14 talks by the scientific elite over the Internet. The broadcasts were a popular centre of attraction on the Web site, as is evident from the high page-hit figures. The Lindau Nobel Laureate Meetings have thus become a “window to the world” and a showcase for Europe as a seat of science, casting its shadow far beyond the borders of our continent.

The Internet site www.lindau-nobel.de is developing more and more into a virtual Nobel Laureate Meeting, where the Laureate lectures are accessible 24 hours a day and scientific discussions can be held in the alumni section, which will be duly expanded. The openness of the information material on the Web site is an essential element of the Lindau Dialogue, which would like to be a source of motivation and inspiration over and beyond cultural and national boundaries. Participation at the Meeting in Lindau remains a very special honour for the chosen young researchers, whose achievements in both scientific and social areas qualify them to join this elite congregation.

The reporting from the 56th Meeting of Nobel Laureates was predominantly of an atmospheric nature, the focus being on the interaction on Lake Constance between the scientific elite and the best young researchers. The conference is increasingly regarded as a platform for intercultural dialogue between the elite of today and the most promising scientific talents of tomorrow, and as the birthplace of networks that continue to prosper long after the days spent on Lake Constance.



The support of students from abroad had a profound and positive influence on the Lindau Meetings and made them even more attractive for all, students and laureates. The interactions and discussions are very lively and gained much by the views and experiences of an international studentship. The wonderful surrounding of Lindau, the lake, the beautiful, old, and hospitable city on the island, and the mountains, and not the least the friendly, helpful staff add to the good spirits of all attendants. When I meet on my travels students who had been at one of the Lindau Meetings they are full of praise and accredit a major influence on their views of science and scientists to it.

Robert Huber, Chemistry 1988

An Eye to the Future

The success of the 56th Nobel Laureate Meeting lies in its acceptance: *in the world of science*, as a unique opportunity for the bright and the best to learn and to acquire motivation from acknowledged authorities in their respective fields in an incomparable atmosphere; *in politics*, as a flagship project for Europe as a seat of science and industry; and *in industry and business*, as an active private-public partnership in which enterprises become involved for the common good.

Systematic organisation of the Meeting as a platform for intercultural dialogue between the elites of today and of tomorrow made this success possible. Continued acceptance of the Meeting will be assured by the fact that the international character of the circle of participants is increasingly pronounced, and through conclusion of long-term agreements for cooperation with leading scientific institutions world-wide.

To underline the Lindau credo of scientific excellence and international networking still further, expansion of the alumni network could represent the next objective. The survey has shown that, after the scientific programme and their encounters with the Nobel Laureates, participating young scientists value above all the exchange of knowledge and experience

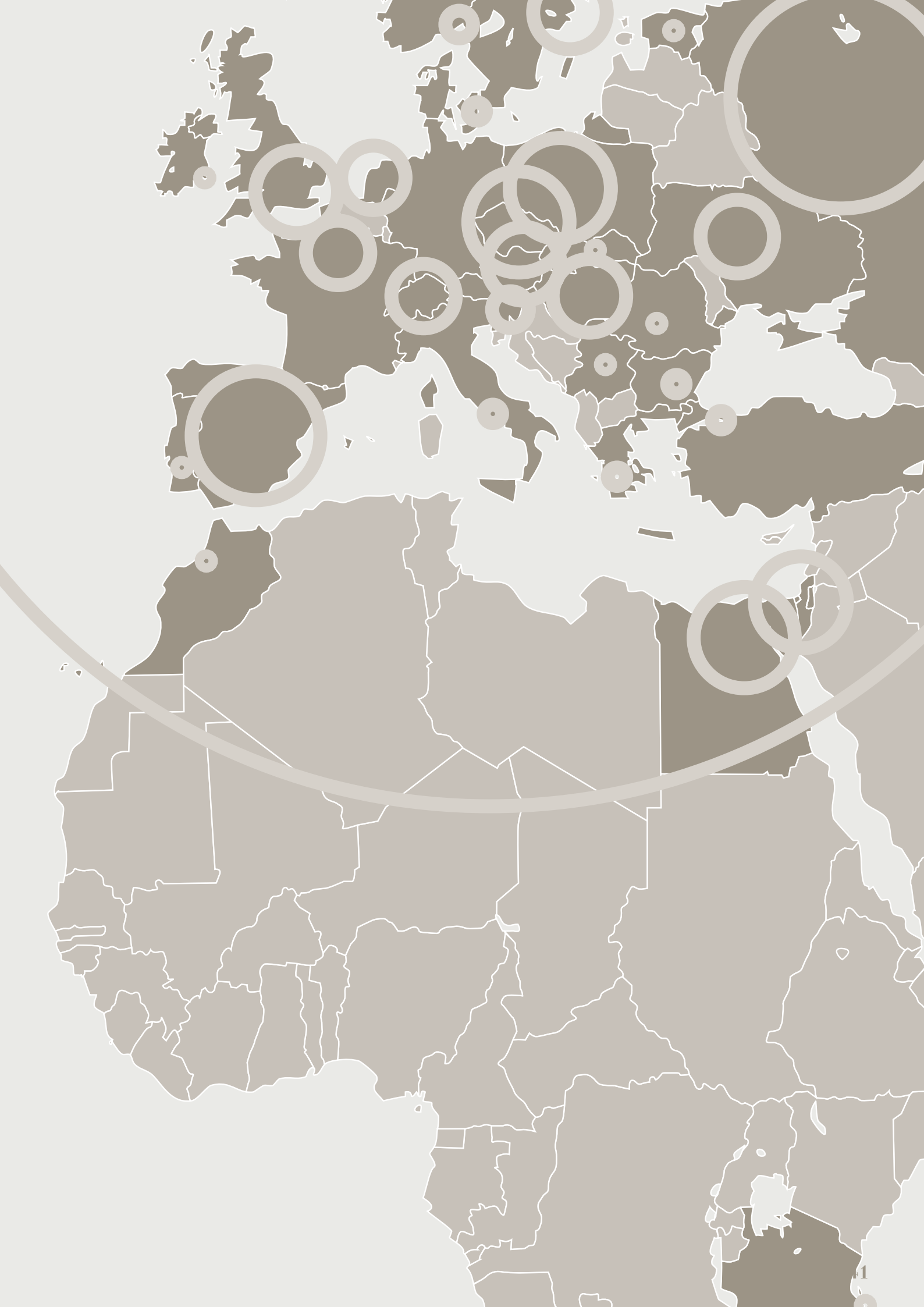
with the other young researchers at the Nobel Laureate Meeting. Greater attention to the alumni will give a decisive impetus to consolidating and expanding the range of international networks springing from the Nobel Laureate Meetings in Lindau.

Global awareness of responsibility in the international science community depends on environments facilitating mutual acceptance. The Lindau Nobel Laureate Meetings on Lake Constance provide the young scientific elite with a once-in-a-lifetime opportunity to do this. With the ongoing development of the Internet site, www.lindau-nobel.de, into an online conference venue, the frank, strongly intercultural character of the Nobel Laureate Meetings appeals not only to former attendees, but is also an invitation to everyone with an interest in science to participate in the Lindau Dialogue. The “window to the world” is opening even wider.

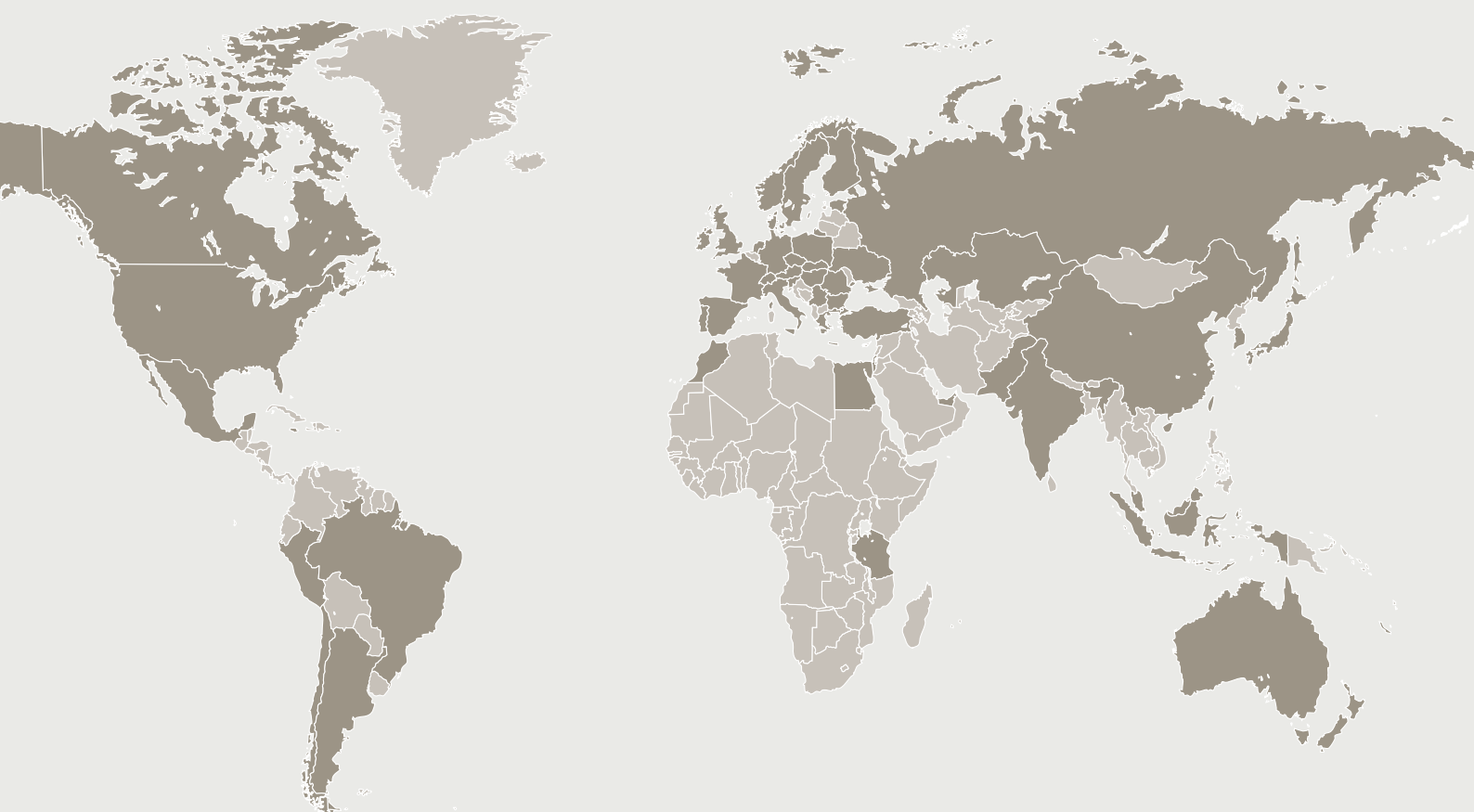
The Council for the Lindau Nobel Laureate Meetings and the Foundation Lindau Nobel-prizewinners Meetings at Lake Constance would like to express their thanks to all the benefactors and donors who contributed in so many different ways to the success of the 56th Nobel Laureate Meeting. Without their generous support, it would be that much more difficult to master the challenges of the future.

Facts & Figures

The Lindau Meeting of Nobel Laureates 2006



More than 500 extremely talented scientists of tomorrow from 53 countries and regions have attended the 56th Meeting of Nobel Laureates in Lindau. Having been nominated by numerous universities, foundations or international research institutes, they have all successfully passed a comprehensive and rigorous selection procedure.



Argentina 3	Australia 7	Austria 8	Brazil 6	Bulgaria 2	Canada 8
Chile 1	China 39	Czech Rep. 11	Denmark 2	Egypt 1	Estonia 1
Finland 1	France 7	Germany 138	Great Britain 9	Greece 2	Hungary 8
India 33	Indonesia 4	Ireland 1	Israel 10	Italy 2	Jamaica 1
Japan 15	Kazakhstan 1	Malaysia 4	Mexico 2	Morocco 1	Netherlands 7
New Zealand 2	Norway 3	Pakistan 8	Peru 1	Poland 11	Portugal 1
Puerto-Rico 1	Romania 1	Russia 24	Singapore 1	Slovak Rep. 1	Slovenia 4
South Korea 5	Spain 14	Sweden 8	Switzerland 7	Taiwan 2	Tanzania 1
Turkey 2	Ukraine 8	UAE 2	USA 70	Yugoslavia 1	



“ The 56th Meeting of Nobel Laureates in Lindau was a very unique experience for me and I really enjoyed it. I never imagined that I would talk to the Laureates personally and that we can exchange ideas. Furthermore, I would like to add that the discussion between the elite about Global Warm-

ing was very exciting. It was very interesting to meet the young scientists and to discuss different issues with them. I actually found a lot of friends. Lindau is a very nice and beautiful place and it is the perfect location for the meeting. Last but not least, I would like to thank the Alexander von Humboldt Foundation to nominate me to attend this wonderful meeting.

Dr. Nadia El-Gamel, Egypt ”



“ During my studies I got acquainted with the fundamental theories underlying chemistry, often named after those who developed them. In Lindau, some of the mere names became unforgettable faces and personalities to me. I realised that a theory is much more than just that, it stands

for an outstanding scientist, a human being whose exceptional life has led to exceptional achievements.

Natalie Renuka Banerji, Austria ”

“ It was an extraordinary experience to participate in the meeting with such a great number of masters that I only knew from the textbooks. I was so much impressed by the group discussions with the laureates about what a scientist should think and how a scientist should be. It will be a great asset for me at the start line as a scientist.

Hyung-Kyoo Kwon, South Korea ”



“ The interaction with Nobel Laureates was very helpful and a unique experience. I learnt that a person just has to stick to his basics and work creatively and intelligently and that this might earn him a Nobel Prize. My interactions also provided an excellent perspective on life and on a life in sci-

ence. These talks motivated me to pursue goals beyond personal achievement and work towards bringing science further into the consciousness of society as a whole. I think that every year there should be some interdisciplinary lectures as these would help people from different fields to learn about the developments in other areas and how these developments have an impact on their area of work. These could spark new ideas and widen horizons of thinking.

Madeeha Aqil, India ”

“ The Nobel Laureates Meeting at Lake Constance is an unforgettable experience. The fact of being among the most prominent personalities and such a big cultural diversity makes one feel in a very special place. The Laureates not only gave excellent lectures about how they addressed a particular issue in sci-

ence and its importance, but also emphasized the benefits of a multidisciplinary science and to see its equilibrium with other fundamental aspects of human development from a holistic point of view. To listen and participate at the discussions was very motivating since it could be possible to know how they passed some obstacles.

It is noteworthy that all Laureates share a pattern: hard work, passion for science and so much love for life. Every social event was well organized and just at the end, on Mainau Island, the tasty smells of the roses pinpointed that the meaning of chemistry lies everywhere. I am very thankful for all the people who make these meetings a perfect achievement.

Carlos Acevedo-Rocha, Mexico ”



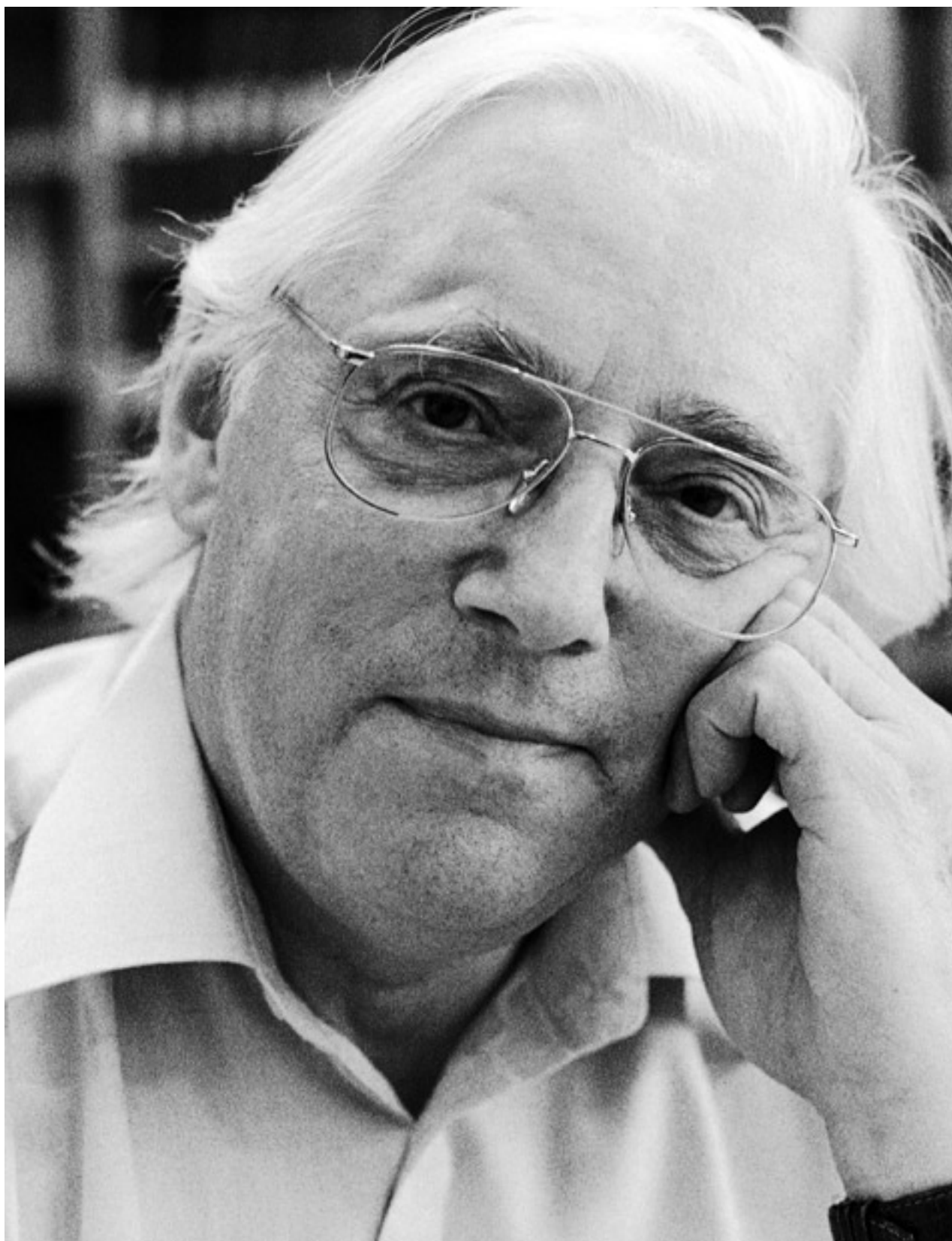
ACADEMIC AMBASSADORS

The Council for the Lindau Nobel Laureate Meetings and the Foundation Lindau Nobelprize-winners Meetings at Lake Constance welcomed young researchers nominated by a worldwide network of academic ambassadors.

Academia Sinica, Taiwan
 Agency for Science, Technology & Research (A*STAR)
 Alexander von Humboldt Foundation
 Australian Academy of Science
 Carl Zeiss AG
 Chemie-Olympiade Baden-Württemberg
 Sino-German Center for Research Promotion
 Community Foundation of Arizona
 Deutsche Bundesstiftung Umwelt (DBU)
 German Research Foundation (DFG)
 German Academic Exchange Service (DAAD)
 Deutsche Telekom Stiftung
 Dickinson College
 Elite Network of Bavaria
 Erasmus University of Rotterdam
 European Molecular Biology Organization (EMBO)
 European Science Foundation (ESF)
 Foundation for Polish Science
 Fraunhofer-Gesellschaft
 Fulbright-Commission
 GAIN - German Academic International Network
 Gottlieb-Daimler- and Karl Benz-Foundation
 Government of Pakistan
 Helmholtz Association of German Research Centres
 Human Frontier Science Programme Organisation (HFSP)

Hungarian Academy of Sciences
 Indian Ministry of Science and Technology
 Industrie-Club e.V. Düsseldorf
 INTAS - International Association for the Promotion of Cooperation with Scientists from the New Independent States of the Former Soviet Union
 Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT)
 The Klaus Tschira Foundation gGmbH
 Konrad Adenauer Foundation e.V.
 Marie Curie Programme of the European Union
 Max Planck Society for the Advancement of Science e. V.
 National Institutes of Health (NIH)
 National Science Foundation (NSF)
 National Institute of Standards and Technology
 Nobel Foundation
 Pakistan Institute of Engineering and Applied Sciences
 Polish Academy of Sciences
 Professor-Rhein-Stiftung
 Robert Bosch Stiftung
 Royal Society of Chemistry
 Royal Society of New Zealand
 Ernst Schering Foundation
 Schweizer Studienstiftung
 Slovenian Academy of Science and Arts
 South Korean Ministry of Science
 Stiftung Jugend forscht e.V.
 United Arab Emirates Ministry of Culture, Higher Education and Science Research
 University of Southern Denmark
 U.S. Department of Energy (DOE)
 The Volkswagen Foundation
 Verband der Chemischen Industrie (VCI)
 Wilhelm Sander-Stiftung





The enthusiasm of the students was impressive. As far as the Laureates were concerned, I was also impressed by their engagement with the students. The arrangements for Laureates were impeccable, and I enjoyed very much having sufficient time to get to know some of them better. I am very grateful to everyone in the Foundation for taking care of me so well.

Sir John E. Walker, Chemistry 1997

SELECTION CRITERIA

for International Talents in Science and Research

All selected participants shall,

- show a genuine interest in science and research,
- show a strong commitment both to their principal field of studies and to the interdisciplinary dialogue with the international academic community,
- receive an unequivocal support of their application by their academic advisor and/or by internationally renowned scientists (received scholarships and other academic awards can serve as recommendations),
- be fluent in English,
- be familiar with societal impacts of scientific knowledge and its applications,
- in general be younger than 30 years;
- in exceptional cases postdoctoral scientists can be up to 35 years of age.

In addition, the following requirements shall be fulfilled in dependence of the age of the participants:

- (1) Undergraduate students shall belong to the top 10 per cent of their class, possess a solid general knowledge in the natural sciences.
- (2) Doctoral students shall have excellent graduation records, produce outstanding research, possess a good teaching experience.
- (3) Postdoctoral scientists shall have up to 5 years of postdoctoral experience, have published results of scientific investigations in widely recognized scientific journals, have presented research reports at scientific meetings, have acquired solid experience in teaching and tutoring, possess experience in research management.

BENEFACTORS AND DONORS

The Council for the Lindau Nobel Laureate Meetings and the Foundation Lindau Nobelprizewinners Meetings at Lake Constance wishes to thank its Principle Patrons and Patrons who have contributed to the endowment.

Principle Patrons of the Foundation Lindau Nobelprizewinners Meetings at Lake Constance

Audi AG
Bertarelli Foundation
Deutsche Bank AG
Ecoscientia Stiftung
EnBW Energie Baden-Württemberg AG
Novartis International AG
Dr. Ing. h. c. F. Porsche AG
SAP AG
Siemens AG
Südwestmetall Baden-Württemberg
Verband der Bayerischen Chemischen Industrie
Verband der Bayerischen Metall- und Elektro-Industrie e.V.

Patrons of the Foundation Lindau Nobelprizewinners Meetings at Lake Constance

Deutsche Telekom Stiftung
Hansjörg Wyss Medical Foundation
Jungbunzlauer AG
Monika and Wolfgang Schürer
Synthes-Stratec Inc.
The Association of German Engineers (VDI)

The following institutions and persons supported as Benefactors and Donors the 56th Meeting of Nobel Laureates 2006 in Lindau and the participation of students and young researchers.

Bavarian State Ministry of Science, Research and the Arts
Robert Bosch Stiftung GmbH
Deutsche Lufthansa AG
Deutsche Telekom Stiftung
Federal Ministry of Education and Research (BMBF)
German Research Foundation (DFG)
Hewlett-Packard GmbH
International Lake Constance Conference (IBK)
MS Management Service AG
UBS AG

Academy of Sciences Malaysia
acatech-Konvent für Technikwissenschaften der Union der deutschen Akademien der Wissenschaften e. V.
Agency for Science, Technologie & Research (A*STAR)
Alexander von Humboldt-Stiftung
artificial image M M Müller
AUDI AG
Australian Academy of Science
Bayerische Staatskanzlei
Berg-Stiftung im Stifterverband
Big Image Systems GmbH
Boehringer Ingelheim GmbH & Co. KG
Carl Zeiss AG
Chemie-Olympiade Baden-Württemberg
Chinesisch-Deutsches Zentrum für Wissenschaftsförderung
Community Foundation of Arizona
Deutsche Bundesstiftung Umwelt (DBU)
Deutsche Post AG/ DHL

Deutsche Telekom AG
 Deutscher Akademischer Austauschdienst (DAAD)
 Dr. Hans Liebherr Stiftung
 EDUARD-RHEIN-STIFTUNG
 Elitenetzwerk Bayern
 Erasmus Universiteit Rotterdam
 ETO Magnetics KG
 European Commission
 European Science Foundation
 F. S. Fehrer GmbH & Co. KG
 Prof. Dr. h.c. Artur Fischer
 Foundation for Polish Science
 Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V.
 Fulbright-Kommission
 German Academic International Network (GAIN)
 Gottlieb Daimler- und Karl Benz-Stiftung
 Government of Pakistan
 Helmholtz-Gemeinschaft Deutscher Forschungszentren
 Human Frontier Science Program (HFSP)
 Hungarian Academy of Sciences
 Indian Ministry of Science and Technology
 Industrie-Club e.V. Düsseldorf
 INTAS, International Association for the promotion of cooperation with scientists from the New Independent States of the former Soviet Union
 Japanese Ministry of Education, Culture, Sports, Sciences and Technology
 Lorie Karnath and Robert E. Roethenmund
 Konrad-Adenauer-Stiftung e.V.
 Lennart-Bernadotte-Stiftung
 Lindauer Zeitung
 MAN AG
 Max-Planck-Gesellschaft
 Bärbel und Prof. Dr. Joachim Milberg
 National Institutes of Health (NIH)

National Science Foundation (NSF)
 National Institute of Standards and Technology (USA)
 Simon Newman
 N.N.
 Nobel Foundation
 Oak Ridge Associated Universities (ORAU)
 Pakistan Institute of Engineering and Applied Sciences
 Polish Academy of Sciences
 PROFESSOR-RHEIN-STIFTUNG
 ProLindau Marketing GmbH & Co. KG
 PricewaterhouseCoopers Aktiengesellschaft
 Royal Society of Chemistry
 Royal Society of New Zealand
 Science&Media, Büro für Wissenschafts- und Technikkommunikation
 Schweizer Studienstiftung
 Sennheiser electronic GmbH & Co. KG
 Slovenian Academy of Sciences and Arts
 South Korean Ministry of Science
 Stadt Lindau (B)
 Stadtverkehr Lindau (B) GmbH
 Stifterverband für die deutsche Wissenschaft
 Stiftung Jugend forscht e.V.
 Stiftung van Meeteren
 Südkurier
 UNESCO
 United Arab Emirates Ministry of Culture, Higher Education and Science Research
 University of Southern Denmark
 U.S. Department of Energy (DOE)
 VolkswagenStiftung
 Verband der Chemischen Industrie e.V.
 Verlagsgruppe Handelsblatt
 Wilhelm Sander-Stiftung

SCIENTIFIC PROGRAMME

of the 56th Nobel Laureate Meeting

MONDAY, JUNE 26TH

Congress Center Inselhalle

- 09:00** **Prof. Richard R. Schrock**
(Chemistry 2005), Cambridge/USA
"How to Reduce Dinitrogen to Ammonia"
- 09:30** **Prof. Ryoji Noyori**
(Chemistry 2001), Wako/JPN
"Asymmetric Catalysis"
- 10:00** **Prof. Kurt Wüthrich**
(Chemistry 2002), Zurich/SUI
"Methods Development by Physical Chemists for Biological and Biomedical Research"
- 10:30** BREAK
- 11:00** **Prof. Hartmut Michel**
(Chemistry 1988), Frankfurt/GER
"Cytochrome c Oxidase and the Major Sodium Ion /Proton Exchanger from Escherichia coli: A Comparison of Two Proton Translocating Membrane Proteins"
- 11:30** **Prof. Johann Deisenhofer**
(Chemistry 1988), Dallas/USA
"Structural Insights into Cholesterol Homeostasis"
- 12:00** **Prof. Sir John E. Walker**
(Chemistry 1997), Cambridge/UK
"Energy Transduction in Mitochondria"

15:00– Scientific discussions in groups
17:00 individual between Nobel Laureates and students/young researchers in the Inselhalle and Altes Rathaus

TUESDAY, JUNE 27TH

Congress Center Inselhalle

- 09:00** **Prof. Theodor W. Hänsch**
(Physics 2005), Munich/GER
"A Passion for Precision"
- 09:30** **Prof. John L. Hall**
(Physics 2005), Boulder/USA
"Increasing the Sensitivity of Laser Spectroscopy"
- 10:00** **Prof. Roy J. Glauber**
(Physics 2005), Cambridge/USA
"100 Years of Light Quanta"
- 10:30** BREAK
- 11:00** **Prof. Aaron Ciechanover**
(Chemistry 2004), Haifa/ISR
"Why Our Proteins Have to Die so We Shall Live"
- 11:30** **Prof. Peter Agre**
(Chemistry 2003), Baltimore/USA
"Aquaporin Water Channels - a Cellular Plumbing System"
- 12:00** **Prof. Walter Kohn**
(Chemistry 2002), Santa Barbara/USA
Movie: *"The Power of the Sun"*

15:00– Scientific discussions in groups
17:00 individual between Nobel Laureates and students/young researchers in the Inselhalle and Altes Rathaus

Scientific Chairpersons:

Prof. Astrid Gräslund, Stockholm

Prof. Wolfgang Lubitz, Mülheim a. d. Ruhr



WEDNESDAY, JUNE 28TH

Congress Center Inselhalle

- 09:00 Prof. Roald Hoffmann**
(Chemistry 1981), Ithaca/USA
"Honesty to the Singular Object: Some Reflections on the Potential of Ethics Arising out of Science"
- 09:30 Prof. Paul J. Crutzen**
(Chemistry 1995), Mainz/GER
"Atmospheric Chemistry and Climate in the Anthropocene"
- 10:00 Prof. Sherwood F. Rowland**
(Chemistry 1995), Irvine/USA
"Greenhouse Gases and Global Climate Change"
- 10:30 BREAK**
- 11:00 Round Table Discussion**
"Energy and Global Warming"
Prof. Paul J. Crutzen
(Chemistry 1995)
Prof. Roy J. Glauber
(Physics 2005)
Prof. Roald Hoffmann
(Chemistry 1981)
Prof. Rudolph Marcus
(Chemistry 1992)
Prof. Sherwood F. Rowland
(Chemistry 1995)
Prof. Sir James Walker
(Chemistry 1997)

CHAIRPERSONS:

Prof. Astrid Gräslund, Stockholm/SWE

Prof. Wolfgang Lubitz, Mülheim/GER

- 15:00–** Scientific discussions in groups
17:00 individual between Nobel Laureates and students/young researchers in the Inselhalle and Altes Rathaus

THURSDAY, JUNE 29TH

Congress Center Inselhalle

- 09:00 Prof. Richard R. Ernst**
(Chemistry 1991), Zurich/SUI
"Fourier Methods in Spectroscopy. From Monsieur Fourier to Medical Imaging"
- 09:30 Prof. Erwin Neher**
(Physiology or Medicine 1991),
Göttingen/GER
"Control of Neurotransmitter and Hormone Release by Calcium and Camp"
- 10:00 Prof. Robert Huber**
(Chemistry 1988), Martinsried/GER
"Structures of Proteins and Innovations in Science and Medicine"
- 10:30 Prof. Jerome Karle**
(Chemistry 1985), Washington/USA
"Kernel Energy Method Illustrated with Peptides"
- 11:00 BREAK**
- 11:30 Prof. Rudolph Marcus**
(Chemistry 1992), Pasadena/USA
"Enzymatic Catalysis: Experiments, Theory and Computations, a Unified View"
- 12:00 Prof. Robert F. Curl Jr.**
(Chemistry 1996), Houston/USA
"Elemental Carbon Chemistry: New Materials"
- 12:30 Prof. William N. Lipscomb**
(Chemistry 1976), Cambridge/USA
"Benefits of Curiosity Driven Research"

- 15:00–** Scientific discussions in groups
17:00 individual between Nobel Laureates and students/young researchers in the Inselhalle and Altes Rathaus

COUNCIL FOR THE LINDAU NOBEL LAUREATE MEETINGS

Honorary President

Prof. Dr. h.c. mult. Count Lennart Bernadotte (†)

President

Countess Sonja Bernadotte

Vice President

Prof. Dr. Franz Knöpfle (*until autumn 2006*)

Vice President

Prof. Dr. Jürgen Uhlenbusch

Treasurer

Nikolaus Turner

Members

Prof. Dr. Werner Arber

Countess Bettina Bernadotte

Thomas Ellerbeck

Prof. Dr. Peter Englund

Prof. Dr. Burkhard Fricke

Prof. Dr. Astrid Gräslund

Prof. Dr. Hans Jörnvall

Prof. Dr. Wolfgang Lubitz

Prof. Dr. h.c. Wolfgang Schürer

Prof. Dr. Helmut Sies

Corresponding Members

Prof. Dr. Lars Bergström

Prof. Dr. Dr. h.c. Werner F. Ebke

Prof. Dr. Martin F. Hellwig

Prof. Dr. Sten Orrenius

Prof. Dr. Dagmar Schipanski

Permanent Guests

Petra Meier to Bernd-Seidl

Peter Wieser

Representative of the President

Dr. Rainer Gerold

Executive Secretariat

Margarete Boms

Nadine Minkner

Christian Rapp

Isabella Schielin

FOUNDATION LINDAU NOBELPRIZEWINNERS MEETINGS AT LAKE CONSTANCE

Honorary Presidents

Prof. Dr. h.c. mult. Count Lennart Bernadotte (†)

Prof. Dr. Dr. hc. mult. Roman Herzog,
Former President of the Federal Republic of Germany

Chairman

Prof. Dr. h.c. Wolfgang Schürer

Deputy Chairperson

Countess Sonja Bernadotte

Members of the Board

Prof. Dr. Dr. h.c. Werner F. Ebke

Thomas Ellerbeck

Nikolaus Turner

Members of the Honorary Senate

Ernesto Bertarelli

Prof. Dr. Dr. h.c. mult. Roman Herzog

Prof. Dr.-Ing. Dr. h.c. Dr.-Ing. E.h. Joachim Milberg

Dr. Edmund Stoiber

Erwin Teufel

Dr. Dr. h.c. Daniel Vasella

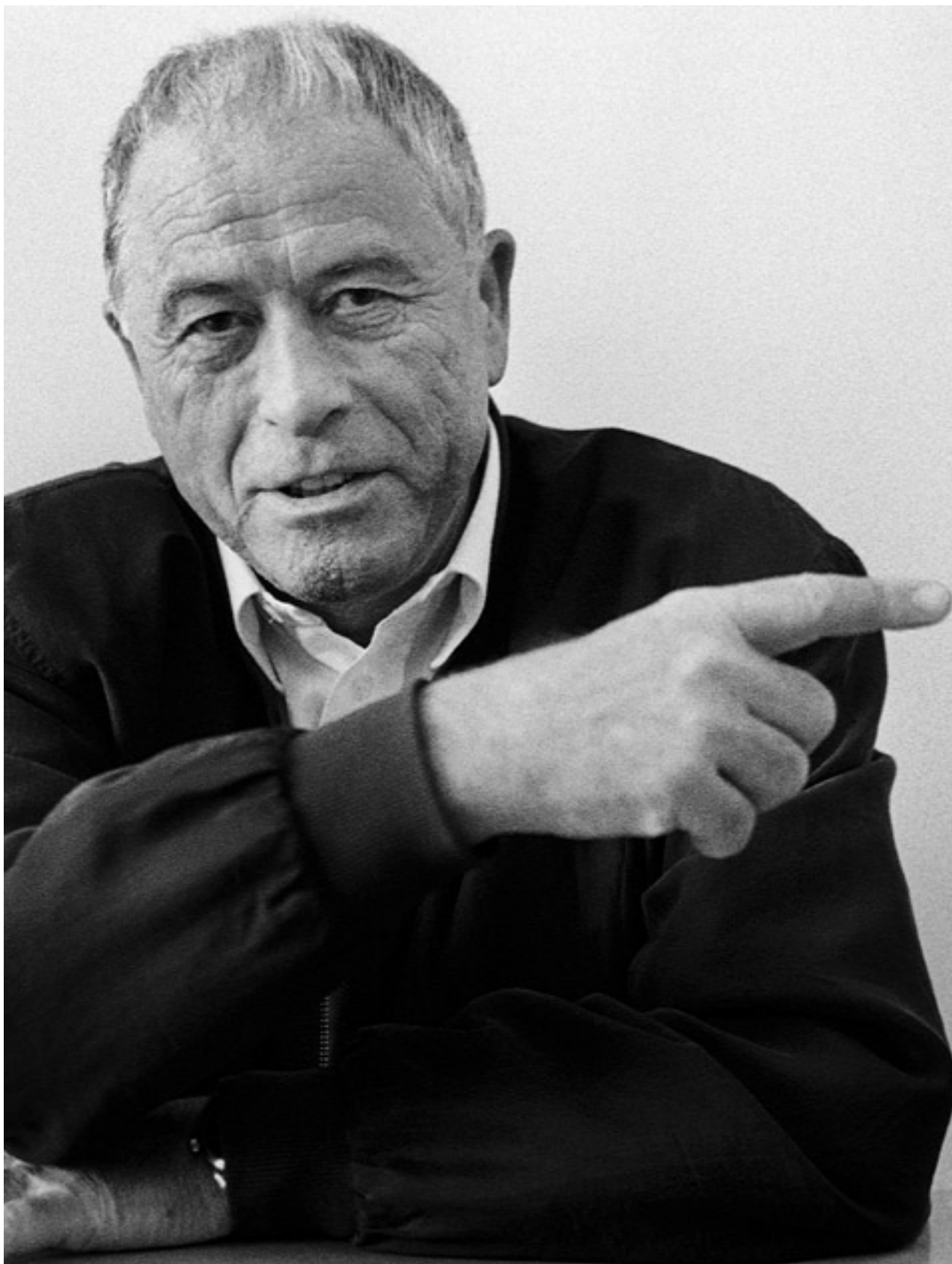
Prof. Dr. Dr. h.c. Ernst-Ludwig Winnacker

Senior Research Associate to the Chairman

Dr. Urs V. Arnold

Personal Assistant to the Chairman

Daniela Preisig



Although the technique eventually worked, I feel that an effort should be made to provide the Laureates with individual rooms for the afternoon discussions with the students. This would without any doubt greatly support more easy-going personal interactions.

Overall, I greatly appreciated the atmosphere of the Lindau Meeting 2006, both for the high level of the scientific program and the always encouraging and upbeat contacts with the students from around the world.

Kurt Wüthrich, Chemistry 2002

PRELIMINARY ACCOUNT

for the 56th Meeting of Nobel Laureates in Lindau

(as per October 31st, 2006)

REVENUES

<i>Description</i>	<i>Amount</i>
Donations and funds from the public sector (Bundesministerium für Bildung und Forschung, Bay. Staatsministerium für Wissenschaft, Forschung und Kunst, Internationale Bodenseekonferenz, Stadt Lindau mit Stadtverkehr Lindau (B) GmbH), from institutions aiding the advancement of science (Deutsche Forschungsgemeinschaft, Jugend forscht, Berg-Stiftung im Stifterverband für die deutsche Wissenschaft, Stifterverband für die deutsche Wissenschaft e.V.), from industry (Boehringer Ingelheim, Deutsche Bank AG, ProLindau Marketing GmbH&Co KG, F S Fehrer GmbH, ZF Friedrichshafen AG, Verband Chemische Industrie, Südkurier GmbH) and charitable or non-profit organisations (Robert Bosch Stiftung gGmbH, Deutsche Telekom Stiftung, Dr. Hans Liebherr-Stiftung, Stiftung van Meerter, Eduard Rhein Stiftung, Klaus Tschira Stiftung gGmbH, Wilhelm Sander-Stiftung, Peter Dornier-Stiftung and Foundation Lindau Nobelprizewinners Meetings at Lake Constance with its Principle Patrons (Audi AG, Bertarelli Foundation, Deutsche Bank AG, Ecoscientia Stiftung, EnBW Energie Baden-Württemberg AG, Novartis International AG, Dr. Ing. h.c. F. Porsche AG, SAP AG, Siemens AG, Südwestmetall Baden-Württemberg, Verband der Bayerischen Chemischen Industrie, Verband der Bayerischen Metall- u. Elektroindustrie e.V.) and Patrons (Deutsche Telekom Stiftung, Hansjörg Wyss Medical Foundation, Jungbunzlauer AG, Monika and Wolfgang Schürer, Synthes-Stratec Inc., Verein Deutscher Ingenieure (VDI)).	535,158.43 €
Participant fees for young scientists taken over by benefactors and subsidies or reimbursements of lodging and travel expenses of young researchers (among them Alexander von Humboldt-Stiftung, Arab Emirates, Arizona State University, Carl Zeiss AG, DAAD, Department of Energy, Deutsche Bundesstiftung Umwelt, Deutsche Telekom AG, Elitenetzwerk Bayern, European Commission, European Molecular Biology Organization, Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V., Fulbright Commission, Gottlieb Daimler und Karl Benz Stiftung, Helmholtz Gemeinschaft, Human Science Frontier Program, Industrie-Club Düsseldorf, Konrad Adenauer Stiftung, Max Planck Gesellschaft, Ms Lorie Karnath, N.N., National Institutes of Health, National Science Foundation, Nobel Foundation Stockholm, Oak Ridge Associated Universities, Professor Rhein Stiftung, Schweizerische Studienstiftung, Science Division Tokyo, Siemens AG, Unesco, Verband der Chemischen Industrie, VolkswagenStiftung).	138,332.58 €
TOTAL SUM OF REVENUES	673,491.01 €

Any deficit which may arise upon presentation of all costs as of 31.12.2006 will be balanced by an existing letter of indemnity provided by the Foundation Lindau Nobelprizewinners Meetings at Lake Constance.

EXPENDITURES

<i>Description</i>	<i>Amount</i>
Printing costs and printed materials	24,757.72 €
Translation and interpreting costs	9,140.05 €
Rent for conference venue	19,349.43 €
Participant logistics	6,704.49 €
External services	46,433.45 €
PR (including outreach initiatives)	23,565.31 €
Costs of selection process for participants	11,500.00 €
Costs in kind for conference	20,948.80 €
General travel expenses	8,434.05 €
Travel expenses for Nobel Laureates	47,864.00 €
Travel expenses for participants	82,566.12 €
Travel expenses for scientific chairmen and Council	9,824.41 €
General boarding costs	2,043.62 €
Boarding costs for Nobel Laureates	14,062.23 €
Boarding costs for participants	22,450.80 €
Boarding costs for Council	673.52 €
General lodging costs	7,608.53 €
Lodging costs for Nobel Laureates	25,813.50 €
Lodging costs for participants	97,502.44 €
Lodging costs for scientific chairmen and Council	19,027.02 €
Expenses for Nobel Laureates	2,682.00 €
Postage	813.39 €
Newspapers, books	549.87 €
Telephone	8,102.03 €
Internet (website and global broadcasting)	62,350.53 €
Office equipment	12,148.45 €
Operating costs (rent, electricity, water etc.)	4,642.10 €
Insurances	2,661.31 €
Overheads for financial transactions	361.96 €
INTERIM TOTAL OF EXPENDITURES	594,761.13 €
Staffing, wages and salaries incl. payroll taxes	74,815.57 €
Accounting costs	3,874.23 €
TOTAL SUM OF EXPENDITURES	673,450.93 €

Additional donations in kind and pro-bono services (among them artificial image, AUDI AG, Big Image Systems GmbH, BrainsToVentures AG | Umantis, Deutsche Lufthansa AG, Deutsche Post AG/ DHL, Druckerei Hermann Brägger, Hewlett Packard, Lennart Bernadotte Stiftung, MAN AG, MS Management Service AG, PricewaterhouseCoopers AG, Sennheiser electronic GmbH & Co. KG, T-Com, UBS AG).

Beyond Lindau

Would you be interested in visiting German and European academic institutions and research facilities following your stay in Lindau?

Total: 443 [does not apply: 33]

I am highly interested in it: 262

It would be an option for me: 132

I am not interested in it: 16

Would you be interested in receiving more information about the Lindau Meetings' benefactors and in an interaction with them?

Total: 440 [does not apply: 0]

I am highly interested in it: 218

It would be an option for me: 185

I am not interested in it: 37

* The interest in the Lindau Meetings' benefactors is very high. About 50% of the participating young scientists would like to know more about them or interact with them. This would be an option for another 42%. The benefactors and donors to the 56th Meeting of Nobel Laureates can therefore be sure that their unique effort in supporting the Lindau Dialogue is acknowledged by the scientists of tomorrow, and furthermore, they would like to interact with them and share ideas.



YOUNG RESEARCHERS' STATEMENTS:

"It would a great idea to make a webpage for alumnis, devided into specific fields."

"Since I am a woman I need female role models. I would very much appreciate to also associate with successful female researchers, such as Astrid Gräslund."

"Despite some of the problems, I do think that the Foundation is on the right track to organizing an international and influential scientific meeting for youth."

"Thanks a lot for the scholarship and everything! The only remark I want to say ist that the band that played on Monday was not so good for young people."

"It would be very really nice to have access to the slide presentations of the laureates on a website."

"What about a group picture with laureates and students?"

"I would like to suggest a social program involving sport activities."

"At the opening ceremony it would be nice to have a short introduction for each speaker. Please restrict/prohibit smoking at conference activities held indoors."

"Academically, the conference was very inspiring and motivating. However, the social program could be improved. I found it too stiff. Considering that there are 500 YOUNG researchers the social program could be more 'lively' – something like a barbeque could be nice. Or the band at the social get together was way too old-fashioned. Otherwise, I had a great time, thank you."



The students are, of course, young people with a limited exposure to the various facets of chemistry. The talks given on this subject should not be given as if the audience were a group of specialists. Some of the speakers often forget this. Some also present too many details to an audience who may be hearing these topics for the first time. The objectives are to entice the students into new areas of science or demonstrate how scientific problems are solved without overwhelming them by the amount of material that is presented.

Jerome Karle, Chemistry 1985



CHEMISTRY, 2006

