



# Lindau Nobel Laureate Meeting

# Programme

28 June – 3 July 2015 Lindau & Mainau Island, Germany



### THE MEETINGS ONLINE

### TABLE OF CONTENTS

### Lindau Blog

blog.lindau-nobel.org

### Lindau Mediatheque

mediatheque.lindau-nobel.org

Nobel Labs 360° nobellabs.lindau-nobel.org

# Lindau Alumni Community alumni.lindau-nobel.org

### Facebook

www.facebook.com/LindauNobelLaureatesMeeting

Twitter
@lindaunobel #LiNo15

Scientific Programme	page 10
About the Meetings	page 40
Supporters	page 45
Maps	page 54
Good to Know	page 60

WELCOME



In 1949, only four years after World War II had ended, two doctors from the small town of Lindau came up with a rather bold idea: to organize an international conference of Nobel Laureates. Just two years later, in the summer of 1951, the first "European Meeting of Nobel Laureates" took place, with six Laureates in attendance and the Swedish King Gustav VI. Adolf sending his greetings. Another two years later, the first students were invited to the meetings, and by the end of the decade, the meetings finally became international by inviting Young Scientists from all continents.

A lot has changed since then – and some things have stayed the same. While the meetings have gone through several stages of development, with the most profound one since the establishment of the Foundation in the year 2000, the meetings have still maintained their original spirit.

It was the idea of the founders Dr. Franz Karl Hein, Professor Dr. Gustav Wilhelm Parade and Count Lennart Bernadotte that this gathering in Lindau, an island very close to its European neighbours, could contribute to reconciliation after the war. Today, with a world still in conflict, this idea is as modern and convincing as it was 65 years ago.

In summer 2015, more than 650 Young Scientists from 88 countries will experience a unique meeting with 67 Nobel Laureates, representing at least half a century of scientific breakthroughs that have deeply impacted our world – not only in the realm of science, but the actual lives of almost all of us.

The Lindau Meetings are about science. And they are about the benefit of science for mankind, as Alfred Nobel has put it so famously in his last will, defining who should receive a Nobel Prize. And in this very sense, Lindau is also a place to become inspired: What should we do research on, and what can we achieve by it beyond writing the next paper? How should we do it, considering its effect on society, environment, everyone around us, and ourselves? In his last Lindau lecture, Nobel Laureate Christian de Duve addressed the Young Scientists with a striking appeal: "My generation has made a mess of things. It is up to you to do better. The future is in your hands. Good luck!"

65 years after their first instalment, the meetings are more than ever dedicated to an exchange that transcends barriers of nationality, religion, gender, or any other origin. We would like to encourage all the Young Scientists to make most of this week: Get in contact with the Nobel Laureates. They have come to Lindau to meet you. Talk to your fellow students. They are your colleagues and collaborators of tomorrow. It is them who will help you "to do better".

Welcome to an exciting week!

Council for the Lindau Nobel Laureate Meetings
Foundation Lindau Nobel Laureate Meetings

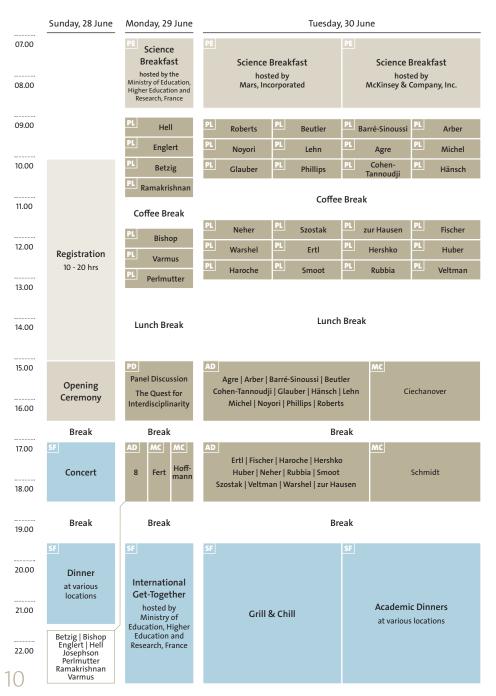


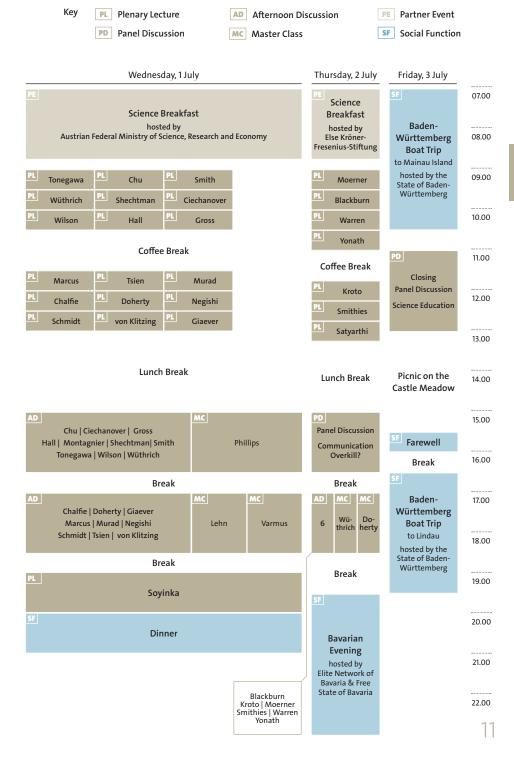
### 65 NOBEL LAUREATES

PETER AGRE WERNER ARBER FRANÇOISE BARRÉ-SINOUSSI ERIC BETZIG BRUCE A. BEUTLER J. MICHAEL BISHOP ELIZABETH H. BLACKBURN MARTIN CHALFIE STEVEN CHU AARON CIECHANOVER CLAUDE COHEN-TANNOUDJI JAMES W. CRONIN PETER C. DOHERTY FRANÇOIS ENGLERT GERHARD ERTL ALBERT FERT EDMOND H. FISCHER IVAR GIAEVER WALTER GILBERT ROY J. GLAUBER DAVID J. GROSS JOHN L. HALL THEODOR W. HÄNSCH SERGE HAROCHE STEFAN W. HELL AVRAM HERSHKO JULES A. HOFFMANN ROBERT HUBER BRIAN D. JOSEPHSON KLAUS VON KLITZING HAROLD W. KROTO JEAN-MARIE LEHN



### PROGRAMME OVERVIEW







# SKETCHES OF SCIENCE

Exhibition

Current dates and information are available at www.lindau-nobel.org.

# SUNDAY, 28 JUNE

<b>10.00</b> Registration Inselhalle	<b>Meeting Registration</b> from 10.00 – 20.00 hrs continuously
14.45	Seats for the Opening Ceremony need to be taken by 14.45 hrs at the latest. Strictly no access after 14.45 hrs. A live stream in the tent next to the congress venue will be offered.
15.00	Opening Ceremony
Opening Ceremony	Welcome
Inselhalle	Countess Bettina Bernadotte President of the Council for the Lindau Nobel Laureate Meetings
	Welcome Address
	Joachim Gauck President of the Federal Republic of Germany
	Greetings from Stockholm
	Carl-Henrik Heldin Chairman of the Board of the Nobel Foundation, Sweden
	Induction of New Members to the Honorary Senate of the Foundation Lindau Nobel Laureate Meetings Bertrand Gros
	Chairman of the Board, Rolex SA, Switzerland
	Ulrich Wilhelm Director General Bavarian Broadcasting Corporation, Germany
	Urban Gaga, Ultra Modern Life and Societies
	Kjell A. Nordström Institute of International Business (IIB), Stockholm School of Economics, Sweden
	Master of Ceremony
	Zulfikar Abbany Deutsche Welle, Germany
	Access: all participants (auditorium or tent)
16.30	Break

# MONDAY, 29 JUNE

### 17.00

Concert Stadttheater

### Reception

Reception upon invitation of the Federal Ministry of Science, Research and Economy, Austria

Access: Nobel Laureates, Young Scientists
Access for guests with online pre-registration only

### Concert

Ensemble of the Vienna Philharmonic Orchestra

Welcome

Vice Chancellor Reinhold Mitterlehner

Federal Minister of Science, Research and Economy, Austria

Access: Nobel Laureates, access for Young Scientists and guests with online pre-registration only

### 19.30

Social Function
Various Locations

### Dinner

Please see your personal agenda for details.



### LOOKING FOR ABSTRACTS?

Lecture and session abstracts are available at mediatheque.lindau-nobel.org

Partner Event  07.00  Science Breakfast	<b>Science and Ethics</b> hosted by Ministry of Education, Higher Education and Research, France
Forum am See	Sophie Carenco Institute of Chemistry, CNRS - UPMC - Collège de France, France
	<i>Jules Hoffmann</i> Molecular and Cellular Biology Institute, Université de Strasbourg, France
	<i>Denis Le Bihan</i> Director of Neurospin, CEA Saclay, France
	Moderator: Michèle Leduc Emeritus Research Director at CNRS, President of CNRS Ethics Committee, France Access: with online pre-registration only
<b>09.00</b> Plenary Lecture Inselhalle	Stefan W. Hell Optical Microscopy: The Resolution Revolution
<b>09.30</b> Plenary Lecture Inselhalle	François Englert The Origin of Elementary Particle Masses
<b>10.00</b> Plenary Lecture Inselhalle	Eric Betzig Working Where Others Aren't
<b>10.30</b> Plenary Lecture Inselhalle	Venkatraman Ramakrishnan Seeing is Believing – A Hundred Years of Visualizing Molecules
11.00	Coffee Break hosted by Ministry of Education, Higher Education and Research, France
11.45 Plenary Lecture Inselhalle	J. Michael Bishop A Virus, a Gene and Cancer: An Anatomy of Discovery
<b>12.15</b> Plenary Lecture Inselhalle	Harold E. Varmus From Proto-Oncogenes to Precision Oncology
<b>12.45</b> Plenary Lecture Inselhalle	Saul Perlmutter What We Learn When We Learn that the Universe is Accelerating

13.15 Catering Tent	<b>Lunch Break</b> hosted by Ministry of Education, Higher Education and Research, France Access: Young Scientists, Nobel Laureates
<b>15.00</b> Panel Discussion Stadttheater	Panel Discussion: The Quest for Interdisciplinarity: Inspiration or Distraction?  Eric Betzig Janelia Farm Research Campus, Howard Hughes Medical Institute, United States  Martin Chalfie Department of Biological Sciences, Columbia University, United States  Steven Chu Physics Department, Stanford University, United States  Stefan W. Hell Max Planck Institute for Biophysical Chemistry, Germany  William E. Moerner Department of Chemistry, Stanford University, United States  Moderator: Sibylle Anderl Institut de Planétologie et d'Astrophysique de Grenoble, France  Access: Nobel Laureates, Young Scientists (limited seating)
16.30	Break
<b>17.00</b> Discussion Altes Rathaus	Eric Betzig Discussion with Young Scientists
<b>17.00</b> Discussion Hotel Bayer. Hof	J. Michael Bishop and Harold E. Varmus Discussion with Young Scientists
<b>17.00</b> Discussion Evang. Hospital	François Englert Discussion with Young Scientists
<b>17.00</b> Discussion Forum am See	Stefan W. Hell Discussion with Young Scientists

<b>17.00</b> Altes Rathaus	Brian D. Josephson Discussion with Young Scientists
<b>17.00</b> Discussion Landratsamt	Saul Perlmutter Discussion with Young Scientists
<b>17.00</b> Discussion Altes Rathaus	Venkatraman Ramakrishnan Discussion with Young Scientists
17.00	Master Class with Albert Fert
Master Class Hotel Bayer. Hof	Spintronics, Nanomagnetism and Magnetic Skyrmions Sándor Bordács Department of Physics, Budapest University of Technology and Economics, Hungary
	Prosper Ngabonziza Faculty of Science and Technology, University of Twente, Netherlands Access: with online pre-registration only
17.00	
17.00 Master Class Hotel Bayer. Hof	Master Class with Jules Hoffmann Co-Chair: Bruce Beutler Antimicrobial Defenses Pedro Alves Immunology, Max Planck Institute for Infection Biology, Germany Claudia Günther Medical Department, Universitätsklinikum Erlangen-Nürnberg, Germany Izumi Mashima Department of Oral Microbiology, Health Sciences University of Hokkaido, Japan Moran Shalev Ben-Ami Structural Biology, Weizmann Institute of Science, Israel Christoph Thaiss Department of Immunology, Weizmann Institute of Science, Israel Access: with online pre-registration only
Master Class	Master Class with Jules Hoffmann Co-Chair: Bruce Beutler Antimicrobial Defenses Pedro Alves Immunology, Max Planck Institute for Infection Biology, Germany Claudia Günther Medical Department, Universitätsklinikum Erlangen-Nürnberg, Germany Izumi Mashima Department of Oral Microbiology, Health Sciences University of Hokkaido, Japan Moran Shalev Ben-Ami Structural Biology, Weizmann Institute of Science, Israel Christoph Thaiss Department of Immunology, Weizmann Institute of Science, Israel

### TUESDAY, 30 JUNE

19.30

Social Function Inselhalle



### **International Get-Together**

hosted by Ministry of Education, Higher Education and Research, France

#### Welcome

Countess Bettina Bernadotte

President of the Council for the Lindau Nobel Laureate Meetings

### Welcome Address

H. E. Najat Vallaud-Belkacem

Ministre de l'Éducation nationale, de l'Enseignement supérieur et de la Recherche, France

### A Look at Water Singing and Dancing in the Brain

Denis Le Bihan

Director of Neurospin, CEA Saclay, France

### **Cultural Performance**

La Gâpette

### **Master of Ceremony**

Alex Taylor

European journalist, France

#### Dinner

#### Dance

Access: Nobel Laureates, Young Scientists

Access for guests with online pre-registration only

### HAVING A BRILLIANT THOUGHT?

Share it with us on

twitter

@lindaunobel #LiNo15



#### Partner Even

#### 07.00

hosted by Mars, Incorporated

Science Breakfast Forum am See

Steven Chu

Physics Department, Stanford University, United States

Howard-Yana Shapiro

Chief Agricultural Officer, Mars, Incorporated

Department of Plant Sciences, University of California, Davis,

**United States** 

Young scientist (tbd)

Moderator: Adam Smith

Feeding the 9.6 billion

Chief Scientific Officer, Nobel Media AB, Sweden

Access: with online pre-registration only

### Partner Event

### 07.00

4

Science Breakfast Hotel Bayer. Hof

# Decoding Science Leadership: What Matters in Leading Innovative Labs, Leading Great People, Leading Self

hosted by McKinsey & Company, Inc.

Elizabeth H. Blackburn

Department of Biochemistry and Biophysics, University of

California, San Francisco, United States

Simon Elsässer

MRC Laboratory of Molecular Biology, Centre for Chemical and

Synthetic Biology, United Kingdom

Frank Mattern

Director, McKinsey & Company, Inc., Germany

Bonnie L. van Wilgenburg

University of Oxford, United Kingdom

Moderator: Matthias Evers

Principal, McKinsey & Company, Inc., Germany

Access: with online pre-registration only

Please note that the following lectures take place in parallel in four different locations. One block indicates one location. Changing between the locations is not recommendable as the sessions may not start and end on schedule and the distance between locations makes changing impracticable.

BLOCK 1	Plenary Lectures: Inselhalle – Hall Bayern
09.00	Richard J. Roberts Why you Should Love Bacteria
09.30	Ryoji Noyori Where am I from? Where are you going?
10.00	Roy J. Glauber Light Quanta, and their Idiosyncrasies
10.30	Coffee Break (at Inselhalle and Stadttheater)
11.30	Erwin Neher Ion Channels: Their Discovery, their Function and their Role in Diseases
12.00	Arieh Warshel  How to Model the Action of Complex Biological Systems on a Molecular Level
12.30	Serge Haroche The International Year of Light: Celebrating Fifty Years of Laser Revolution in Physics
BLOCK 2	Plenary Lectures: Inselhalle – Hall Europa
09.00	Bruce A. Beutler Finding Mutations that Affect Immunity
09.30	Jean-Marie Lehn Towards Adaptive Chemistry
10.00	William D. Phillips Quantum Information: a Scientific and Technological Revolution for the 21st Century
10.30	Coffee Break (at Inselhalle and Stadttheater)

11.30	Jack W. Szostak The Origins of Cellular Life
12.00	Gerhard Ertl Catalysis at Surfaces: From Atoms to Complexity
12.30	George F. Smoot Gamma Ray Bursts: Windows on the Universe
BLOCK 3	Plenary Lectures: Stadttheater
09.00	Françoise Barré-Sinoussi Translational Science on Viral Infectious Diseases: From Louis Pasteur to today
09.30	Peter Agre Aquaporin Water Channels – From Atomic Structure to Malaria
10.00	Claude Cohen-Tannoudji The Adventure of Cold Atoms. From Optical Pumping to Quantum Gases
10.30	Coffee Break (at Inselhalle and Stadttheater)
11.30	Harald zur Hausen Colon- and Breast Cancers and Specific Neurological Disorders as Zoonoses?
12.00	Avram Hershko Roles of the Ubiquitin System in Health and Disease
12.30	Carlo Rubbia Future Accelerators for Astro-Particle Physics
BLOCK 4	Plenary Lectures: Parktheater
09.00	Werner Arber Insight into the Laws of Nature for Biological Evolution
09.30	Hartmut Michel Membrane Proteins: Importance, Functions, Mechanisms

10.00	Theodor W. Hänsch Science with Combs of Light
10.30	Coffee Break (at Inselhalle and Stadttheater)
11.30	Edmond H. Fischer The Origin of Reversible Protein Phosphorylation as a Regulatory Mechanism
12.00	Robert Huber Structural Aspects of Protease Control in Health and Disease and my Experience with Translation into Practice and Business
12.30	Martinus J. G. Veltman Discovery of the Higgs Particle
13.00 Catering Tent	Lunch Break Access: Young Scientists, Nobel Laureates
<b>15.00</b> Discussion Altes Rathaus	Peter Agre Discussion with Young Scientists
<b>15.00</b> Discussion Inselhalle	Werner Arber Discussion with Young Scientists
<b>15.00</b> Discussion Inselhalle	Françoise Barré-Sinoussi Discussion with Young Scientists
<b>15.00</b> Discussion Forum am See	Bruce A. Beutler Discussion with Young Scientists
<b>15.00</b> Discussion Landratsamt	Claude Cohen-Tannoudji Discussion with Young Scientists
<b>15.00</b> Discussion Evang. Hospital	Roy J. Glauber Discussion with Young Scientists

	Access: with online pre-registration only
	Peter Reinhardt Center for Regenerative Therapies (CRTD), Technical University Dresden, Germany
	Rishika Kundra Department of Chemistry, University of Cambridge, United Kingdom
	Changjiang Hu Third Military Medical University, Xinqiao Hospital, China
Hotel Bayer. Hof	Cellular Quality Control – Mechanisms and Clinical Implications
<b>15.00</b> Master Class	Master Class with Aaron Ciechanover
<b>15.00</b> Discussion Inselhalle	Richard J. Roberts Discussion with Young Scientists
<b>15.00</b> Discussion Stadttheater	William D. Phillips Discussion with Young Scientists
<b>15.00</b> Discussion Altes Rathaus	Ryoji Noyori Discussion with Young Scientists
<b>15.00</b> Discussion Stadttheater	Hartmut Michel Discussion with Young Scientists
<b>15.00</b> Discussion Altes Rathaus	Jean-Marie Lehn Discussion with Young Scientists
<b>15.00</b> Discussion Hotel Bayer. Hof	Theodor W. Hänsch Discussion with Young Scientists

<b>17.00</b> Discussion Hotel Bayer. Hof	Gerhard Ertl Discussion with Young Scientists	
<b>17.00</b> Discussion Altes Rathaus	Edmond H. Fischer Discussion with Young Scientists	
<b>17.00</b> Discussion Inselhalle	Serge Haroche Discussion with Young Scientists	
<b>17.00</b> Discussion Evang. Hospital	Avram Hershko Discussion with Young Scientists	
<b>17.00</b> Discussion Landratsamt	Robert Huber Discussion with Young Scientists	
<b>17.00</b> Discussion Altes Rathaus	Erwin Neher Discussion with Young Scientists	
17.00 Discussion Inselhalle	Carlo Rubbia Discussion with Young Scientists	
17.00 Discussion Stadttheater	George F. Smoot Discussion with Young Scientists	
<b>17.00</b> Discussion Altes Rathaus	Jack W. Szostak Discussion with Young Scientists	
<b>17.00</b> Discussion Inselhalle	Martinus J. G. Veltman Discussion with Young Scientists	
<b>17.00</b> Discussion Hotel Bayer. Hof	Arieh Warshel Discussion with Young Scientists	
<b>17.00</b> Discussion Forum am See	Harald zur Hausen Discussion with Young Scientists	

<b>17.00</b> Master Class Hotel Bayer. Hof	Master Class with Brian P. Schmidt Co-Chair: Elizabeth H. Blackburn
	A 21st Century Career in Research: A Discussion about Thriving in the Face of Career Uncertainty
	Uta Allenstein Department for Experimental Physics, University of Leipzig, Germany
	Hemant P. Borase Department of Biochemistry, North Maharashtra University, India Daniel Häufle
	University Stuttgart, Germany
	Else Starkenburg Leibniz-Institut für Astrophysik Potsdam, Germany Access: with online pre-registration only
10.20	
18.30	Break
19.30 Social Function Various Locations	Academic Dinners upon invitation of the Academic Partners Access: by invitation only
19.30 Social Function Toskanapark	Grill & Chill: Connecting Cultures upon invitation of the Council & Foundation Access: by invitation only

Partner Event 07.00 Science Breakfast Forum am See	<b>Genes, Nutrition and the Environment</b> hosted by the Federal Ministry of Science, Research and Economy, Austria
	Aaron Ciechanover The Rappaport Faculty of Medicine and Research Institute, Technion - Israel Institute of Technology, Israel
	Petra Paul Experimental Immunology, University of Zurich, Switzerland
	Jack W. Szostak Department of Molecular Biology, Massachusetts General Hospital, United States
	Moderator: Giulio Superti-Furga CEO and Scientific Director, CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences, Austria

Please note that the following lectures take place in parallel in four different locations. One block indicates one location. Changing between the locations is not recommendable as the sessions may not start and end on schedule and the distance between locations makes changing impracticable.

Access: with online pre-registration only

BLOCK 1	Plenary Lectures: Inselhalle – Hall Bayern
09.00	Susumu Tonegawa Memory Engram Cells Have Come of Age
09.30	Kurt Wüthrich NMR in Biology, Chemistry and Medicine
10.00	Robert W. Wilson Cosmic Microwave Background Radiation and its Role in Cosmology
10.30	Coffee Break (at Inselhalle and Stadttheater)
11.30	Rudolph A. Marcus Electron Transfer Theory in Single Molecule Studies of Intermittent Fluorescence of Quantum Dots and in Initial Steps in Dye Sensitized Solar Cells

12.00	Martin Chalfie Tickling Worms: Surprises from Basic Research
12.30	Brian P. Schmidt The State of the Universe
BLOCK 2	Plenary Lectures: Inselhalle – Hall Europa
09.00	Steven Chu A Random Walk in Science
09.30	Dan Shechtman Quasi-Periodic Crystals, a Paradigm Shift in Crystallography
10.00	John L. Hall What about Redefining Time using a Stable Laser?
10.30	Coffee Break (at Inselhalle and Stadttheater)
11.30	Roger Y. Tsien Molecules against Cancer or for Long-term Memory Storage
12.00	Peter C. Doherty The Killer Defence
12.30	Klaus von Klitzing A New Kilogram in 2018: The Biggest Revolution in Metrology since the French Revolution
BLOCK 3	Plenary Lectures: Stadttheater
09.00	Hamilton O. Smith
	Minimizing a Bacterial Genome by Global Design and Synthesis
09.30	Aaron Ciechanover
	The Revolution of Personalized Medicine: Are we Going to Cure all Diseases and at What Price?

10.00	David J. Gross  The Future of Particle Physics
10.30	Coffee Break (at Inselhalle and Stadttheater)
11.30	Ferid Murad Role of Nitric Oxide and Cyclic GMP in Cell Signaling and Drug Development
12.00	Ei-Ichi Negishi How to Synthesize a Wide Variety of Optically Active Organic and Bioorganic Compounds of >99% Optical Purity
12.30	Ivar Giaever Global Warming Revisited
13.00 Catering Tent	Lunch Break Access: Young Scientists, Nobel Laureates
<b>15.00</b> Discussion Inselhalle	Steven Chu Discussion with Young Scientists
<b>15.00</b> Discussion Forum am See	Aaron Ciechanover Discussion with Young Scientists
<b>15.00</b> Discussion Inselhalle	David J. Gross Discussion with Young Scientists
<b>15.00</b> Discussion Inselhalle	John L. Hall Discussion with Young Scientists
<b>15.00</b> Discussion Altes Rathaus	Luc Montagnier Discussion with Young Scientists
<b>15.00</b> Discussion Stadttheater	Dan Shechtman Discussion with Young Scientists

7,

<b>17.00</b> Discussion Inselhalle	Ferid Murad Discussion with Young Scientists
<b>17.00</b> Discussion Hotel Bayer. Hof	Ei-Ichi Negishi Discussion with Young Scientists
<b>17.00</b> Discussion Inselhalle	Brian P. Schmidt Discussion with Young Scientists
<b>17.00</b> Discussion Forum am See	Roger Y. Tsien Discussion with Young Scientists
<b>17.00</b> Discussion Inselhalle	Klaus von Klitzing Discussion with Young Scientists
17.00 Master Class Hotel Bayer. Hof	Supramolecular and Adaptive Chemistry: From Materials Science to Medicine Renata Balgley Organic Chemistry, Weizmann Institute of Science, Israel Wei Cao Department of Chemistry, Tsinghua University, China Benjamin Doistau Université Pierre et Marie Curie, France Angel Luis Fuentes de Arriba Department of Organic Chemistry, University of Salamanca, Spain Jenifer Rubio Magnieto Laboratory for Chemistry of Novel Materials, University of Mons- UMONS, Belgium Jochen Niemeyer Institute of Organic Chemistry, University of Duisburg-Essen, Germany Access: with online pre-registration only

17.00	Master Class with Harold E. Varmus							
Master Class Hotel Bayer. Hof	Co-Chairs: J. Michael Bishop, Steven Chu							
rioter bayer. Hor	What are the Big Questions in Cancer Research and Which Scientific Disciplines are Needed to Answer Them?							
	Uri Ben-David The Broad Institute of Harvard and MIT, United States							
	Volker Hovestadt Molecular Genetics, German Cancer Research Center, Germany							
	Lian Chye Winston Koh Stanford University, United States							
	Amelia Parker Children's Cancer Institute, Australia							
	Christina Schindler Physics Department, Technische Universität München, Germany							
	Access: with online pre-registration only							
18.30	Break							
<b>19.00</b> Plenary Lecture Stadttheater	Wole Soyinka When Survival Seems Learning Enough Access: Nobel Laureates; Young Scientists with online pre-registration only							
20.00 Social Function Catering Tent	<b>Dinner</b> Access: Young Scientists Dinner will begin after the preceeding lecture.							

### MISSED SOMETHING?

Watch it online at mediatheque.lindau-nobel.org



Partner Event 07.00	The Maze of Science: Which Path Should Research follow? hosted by the Else Kröner-Fresenius-Stiftung
Science Breakfast Forum am See	Alice Accorroni Institute of Life Sciences, Scuola Superiore Sant'Anna, Italy
	Nicholas Chilton School of Chemistry, The University of Manchester, United Kingdom
	Pierre Karam American University of Beirut, Lebanon
	Linda J. Miller Executive Editor, Cancer Immunology Research, American Association for Cancer Research (AACR), United States Brian P. Schmidt
	The Research School of Astronomy and Astrophysics, The Australian National University, Australia
	Moderator: Susanne Schultz-Hector Member of the Board, Else Kröner-Fresenius-Stiftung, Germany
	Access: with online pre-registration only
<b>09.00</b> Plenary Lecture Inselhalle	William E. Moerner Fun with Light and Single Molecules
<b>09.30</b> Plenary Lecture Inselhalle	Elizabeth H. Blackburn Telomeres: Telling Tails
10.00 Plenary Lecture Inselhalle	J. Robin Warren The Discovery of Helicobacter
10.30 Plenary Lecture Inselhalle	Ada E. Yonath Species-Specific Antibiotics and the Microbiome
11.00	Coffee Break
11.45 Plenary Lecture Inselhalle	Harold W. Kroto After Nearly 100 Years the Hunt May Be Up for the Carrier of the Diffuse Interstellar Bands

<b>12.15</b> Plenary Lecture Inselhalle	Oliver Smithies Ideas Come from Many Places
<b>12.45</b> Plenary Lecture Inselhalle	Kailash Satyarthi Education Needs to be Equitable and Inclusive for All
13.15 Catering Tent	Lunch Break Access: Young Scientists, Nobel Laureates
15.00	Panel Discussion: Communication Overkill?
Panel Discussion Stadttheater	Mallory Paige Ladd Energy Science and Engineering, University of Tennessee, United States
	Marcia McNutt Editor-in-Chief, Science family of journals American Association for the Advancement of Science
	Jalees Rehman Associate Professor of Medicine and Pharmacology University of Illinois at Chicago
	Brian P. Schmidt The Research School of Astronomy and Astrophysics, The Australian National University, Australia
	Harold E. Varmus Lewis Thomas University, Weill Cornell Medical College, United States
	Moderator: Adam Smith Chief Scientific Officer, Nobel Media AB, Sweden Access: Nobel Laureates, Young Scientists (limited seating)
16.30	Break
<b>17.00</b> Discussion Altes Rathaus	Elizabeth H. Blackburn Discussion with Young Scientists
<b>17.00</b> Discussion Stadttheater	Harold W. Kroto Discussion with Young Scientists

# THURSDAY, 2 JULY

<b>17.00</b> Discussion Landratsamt	William E. Moerner Discussion with Young Scientists
<b>17.00</b> Discussion Hotel Bayer. Hof	Oliver Smithies Discussion with Young Scientists
<b>17.00</b> Discussion Evang. Hospital	J. Robin Warren Discussion with Young Scientists
<b>17.00</b> Discussion Forum am See	Ada E. Yonath Discussion with Young Scientists
<b>17.00</b> Master Class	Master Class with Peter C. Doherty
Hotel Bayer. Hof	How the Immune System Works  Olesja Bondarenko National Institute of Chemical Physics and Biophysics, Estonia  Carina Dehner Institute of Anatomy and Cell Biology, Ludwig-Maximilian- Universität, Germany  Stephen Rubino Harvard Medical School and Brigham and Women's Hospital, USA
	Ondřej Štěpánek Department of Biomedicine, University and University Hospital Basel, Switzerland
	Bonnie L. van Wilgenburg University of Oxford, United Kingdom Access: with online pre-registration only

17.00 Master Class with Kurt Wüthrich Master Class NMR Spectroscopy and Magnetic Resonance Imaging, Hotel Bayer. Hof from Physics to Medical Diagnosis Serge Alain Fobofou Department of Bioorganic Chemistry, Leibniz Institute of Plant Biochemistry, Germany Michael A. Klatt Department of Physics, Friedrich-Alexander Universität Erlangen-Nürnberg, Germany Lauren E. Marbella Department of Chemistry, University of Pittsburgh, United States Nicole Marinsek Dynamical Neuroscience, University of California, Santa Barbara, United States Robert J. Messinger CNRS, France Access: with online pre-registration only 18.30 Break 19.30 **Bavarian Evening** Social Function hosted by the Elite Network of Bavaria and the Free State of Bavaria Inselhalle Words of Welcome Ludwig Spaenle Bavarian State Minister of Education, Science and the Arts, Germany Bavaria – Land of Science and Research Klaus von Klitzing Max Planck Institute for Solid State Research, Germany Current Research Projects in the Elite Network of Bavaria Vanessa Jane Bukas. Michael Klatt Bayarian Music & Folk Dance

Bavarian Buffet Dinner

Access: Nobel Laureates, Young Scientists
Access for guests with online pre-registration only

07.15

MS Sonnenkönigin



Baden-Württemberg Boat Trip to Mainau Island hosted by the State of Baden-Württemberg

Access: Nobel Laureates, Young Scientists
Access for guests with online pre-registration only

07.15

Lindau Harbour

07.45

Lindau Harbour

08.00

Bad Schachen

08.15

Bad Schachen

Check In (Lindau)

Departure (Lindau)

Arrival (Hotel Bad Schachen)

Departure (Hotel Bad Schachen)

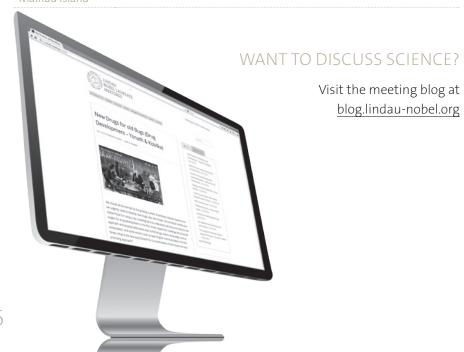
Welcome

Klaus-Peter Murawski

State Secretary and Head of the State Chancellery Ministry of State Baden-Württemberg, Germany

**10.20**Mainau Island

Arrival (Mainau Island)



11.00 Closing Panel

Discussion
Mainau Island
Castle Meadow

Panel Discussion: Science Education

Lucia Prieto Godino
Postdoctoral researcher.

Center for Integrative Genomics, University of Lausanne, Switzerland

Harold W. Kroto

Department of Chemistry and Biochemistry, The Florida State

University, United States

Kailash Satyarthi

Nobel Peace Laureate 2014, India

Georg Schütte

State Secretary, German Federal Ministry of Education and Research,

Germany

Moderator: Alok Jha
ITV News, United Kingdom
Access: all participants

*Jubilee Remarks* José Manuel Barroso

Former EU Commission President

13.00

Lunch Break Mainau Island Picnic Lunch on the Castle Meadow

hosted by the State of Baden-Württemberg

15.30

Castle Courtyard

Conclusion & Farewell

Countess Bettina Bernadotte

President of the Council for the Lindau Nobel Laureate Meetings

Theresia Bauer

Minister of Science, Research and the Arts

Government of the State of Baden-Württemberg, Germany

16.30

Mainau Harbour

Departure (Mainau Island)
Baden-Württemberg Boat Trip to Lindau

hosted by the State of Baden-Württemberg

Access: Nobel Laureates, Young Scientists, guests

18.30

Bad Schachen

18.45

Lindau Harbou

Arrival (Hotel Bad Schachen)

Arrival (Lindau)

# FRIDAY, 3 JULY

### Note:

For all participants departing on Friday and not returning to their hotel: No travel luggage may be taken on the boat. Two luggage lorries will be available; please place your luggage accordingly.

Lorry 1: to "Mainau Island": for those not returning to Lindau. Pick-up at main entrance on Mainau Island until 17.30 hrs.

Lorry 2: to "Lindau": for those leaving directly after their return to Lindau. Pick-up at Lindau harbour immediately after arrival.

Certificates of Attendance will be available on the boat.

Bus transfers will be provided for guests with confirmed participation for the events on Mainau Island, but without confirmed boat trip.



THE LINDAU MEETINGS: NOW AND THEN

An Exhibition

28 March – 18 October 2015 | Stadtmuseum Lindau Free exhibition access with Young Scientist name badge

### ABOUT THE MEETINGS

### ABOUT THE MEETINGS

### The Meetings

The Lindau Nobel Laureate Meetings — established in 1951 — provide globally recognised forums for the exchange of knowledge between Nobel Laureates and Young Scientists. They inspire scientific generations and build sustainable networks of Young Scientists from around the world.

The participants at the Lindau Meetings are characterised by diversity. They all come from a variety of national and scientific backgrounds and have very different ways of communicating. This makes the Nobel Laureate Meetings unique in the world and a model of the kind of visionary cooperation which science will increasingly need in the future. Furthermore, scientific progress will need to be firmly anchored in international and interdisciplinary networks of individuals working together. Lindau provides the stimulus for such networks to take root and grow.

The original idea of the meetings goes back to the two Lindau physicians Dr. Franz Karl Hein and Professor Dr. Gustav Wilhelm Parade as well as Count Lennart Bernadotte af Wisborg, a member of the Swedish royal family who quickly became the spiritus rector of the Lindau Meetings. It was them who recognised the significance of the meetings for the reconciliation of the peoples of post-war Europe early and thus systematically developed it to an international forum for the exchange of knowledge between nations, cultures and disciplines.

### The Organisers

The Council for the Lindau Nobel Laureate Meetings and the Foundation Lindau Nobel Laureate Meetings organise the annual meetings. The executive secretariat is responsible for their planning and realisation.

Countess Bettina Bernadotte af Wisborg is president of the council, which sets the course for the Lindau Meetings' concept and programme. Internationally accredited scientists from the fields of medicine, physics, chemistry and the economic sciences are members of the council. The work of the council benefits from the commitment of the secretaries of the assemblies responsible for

awarding the Nobel Prizes: at least one of the two scientific chairpersons of each conference is a member of the institutions that select the Nobel Laureates.

The foundation was established in the year 2000 by the council and the Bernadotte family on the initiative of 50 Nobel Laureates. Prof. Dr. h.c. Wolfgang Schürer serves as the chairman of the board of the foundation. Joint initiatives regarding the advancement of the Lindau Meetings and the establishment of an international network of academic partners are key priorities besides ensuring sustainable funding.

The Lindau Meetings enjoy widespread support. Almost 300 Nobel Laureates are members of the founders' assembly of the foundation and demonstrate – through their membership and their participation in the Lindau Dialogue – their support for the principle of the Lindau Nobel Laureate Meetings. Personalities from the worlds of science, politics and industry have been inaugurated into the foundation's honorary senate in recognition of the special commitment they have shown towards scientific excellence and the promotion of Young Scientists.

### Funding of the Lindau Nobel Laureate Meetings

The Lindau Nobel Laureate Meetings are enabled thanks to the support received from companies, associations and private patrons, on the one hand, and from national and state ministries, the International Lake Constance Conference and the European Commission on the other.

International companies, selected foundations, associations and private patrons assure the material basis for the Lindau Meetings by making donations to the assets of the Foundation Lindau Nobel Laureate Meetings. Interest earned on the endowment, plus additional annual contributions by benefactors cover the budget of the Lindau Meetings. Donations in kind also play an important role in raising the professional level of the Meetings. The success of the Lindau Meetings can also be attributed not least to the commitment shown by the Nobel Laureates, members of the council and the board of the foundation during the preparation, realisation and evaluation of the Meetings. A full list of supporters is enclosed in this programme.

### ABOUT THE MEETINGS

### ABOUT THE MEETINGS

### The Academic Partners Network

The Lindau Nobel Laureate Meetings interact closely with a global network of academic partners to identify highly-talented Young Scientists and to nominate them for participation. Partners include national academies of science, ministries, research institutions, top-ranking universities, foundations and international scientific organisations. Without this support, the Lindau Nobel Laureate Meetings would not be able to identify and invite the most gifted scientific talents world-wide.

The world's best Young Scientists of tomorrow submit applications to attend the Lindau Nobel Laureate Meetings. An international, multi-stage selection process makes sure that the scientific elite of the future is able to come together with the Nobel Laureates in Lindau. Every year, several thousand Young Scientists worldwide apply.

A full list of academic partners can be found in the Participants Directory.

### Lanyard Color Key

Turquoise Nobel Laureates, their partners and family members

Grey Young Scientists
White Visiting Scientists

Red Guests
Yellow Journalists
Lime Green Host Families
Purple Lindau Citizens
Orange Contractors

Brown Contractors of Third Parties
Green Council & Foundation

Black Staff of the Executive Secretariat

### Programme Session Types

The 65<sup>th</sup> Lindau Nobel Laureate Meeting features a variety of session formats.

In general, the mornings usually offer plenary formats, while the afternoons add more interactive elements.

### Plenary Lecture

Plenary lectures are given by Nobel Laureates only. They may choose a topic of their liking – be it their Nobel Prize research, be it something else. As the time is limited to thirty minutes, there is usually no discussion.

### Plenary Panel Discussion

In a plenary panel discussion, several panelists jointly discuss one topic. This year, three discussions are offered: on Monday ("The Quest for Interdisciplinarity: Inspiration or Distraction?"), on Thursday ("Communication Overkill?") and on Friday ("Science Education").

#### **Discussion Sessions**

In the afternoon, all lectures held in the morning can be discussed in separate discussion sessions. These research-oriented discussions are strictly limited to Laureates and Young Scientists, and switching between sessions should be avoided.

### **Master Class**

This format will offer a most intense exchange between Young Scientists and Laureates, as selected Young Scientists present their research and then engage in an in-depth discussion with a Laureate. Attendance requires online pre-registration.

#### Science Breakfasts

Science breakfasts are additional options for a more informal exchange. They are organised by Lindau's partners, featuring talks, discussions and a joint breakfast with a Nobel Laureate. Attendance requires online pre-registration.

The Lindau Nobel Laureate Meetings would like to thank all maecenates, patrons and donors for their contributions to the endowment of the foundation.

### PRINCIPAL MAECENATES

Mars, Incorporated Volkswagen Group

### **MAECENATES**

Astra Zeneca

Audi AG

Bayer AG

Deutsche Bank AG

Dr. Ing. h.c. F. Porsche AG

**Ecoscientia Stiftung** 

EnBW Energie Baden-Württemberg AG

Freistaat Bayern, vertreten durch das Bayerische Staatsministerium für Bildung und Kultus, Wissenschaft und Kunst

Lockheed Martin Corporation - Lockheed Environmental Systems & Technologies Co.

Microsoft Corporation

Rolex S.A.

**RWE AG** 

SAP SE

Verband der Bayerischen Metall- u. Elektroindustrie



# NOLDE by Emil Nolde

28 March – 30 August 2015 | Stadtmuseum Lindau Free exhibition access with Young Scientist name badge

#### PRINCIPAL PATRONS

Bertarelli Foundation

Carl Zeiss Stiftung

Linde AG

Lonza Group AG

McKinsey & Company, Inc.

Monika and Wolfgang Schürer

National Research Foundation (NRF), Singapore

**NOVARTIS** International AG

Principality of Liechtenstein

Siemens AG

Südwestmetall Verband der Metall- und Elektroindustrie Baden-Württemberg e.V.

Swiss Reinsurance Company Ltd

The OPEC Fund for International Development (OFID)

Verein der Bayerischen Chemischen Industrie e.V.

Volkswagen AG

#### **PATRONS**

Deutsche Telekom Stiftung

Holcim Ltd

Klaus Tschira Stiftung gGmbH

Robert Bosch GmbH

Verein Deutscher Ingenieure e.V.

#### PRINCIPAL DONORS

Alexander S. Onassis Public Benefit Foundation

Boehringer Ingelheim GmbH

Cabot Corporation Foundation Inc.

Carl Zeiss AG

Fondazione Cariplo

Hansjörg Wyss Medical Foundation

Jacobs Foundation

Jörnvall Foundation

LGT Group Foundation

maxingvest ag (Tchibo Holding AG)

Merck KGaA

Synthes-Stratec Inc.

Verband der Chemischen Industrie e.V. (VCI)

#### **DONORS**

acatech - Deutsche Akademie der Technikwissenschaften

Alcoa Inc.

Alexander and Katalin Dembitz

American Chemical Society

Andreas Büchting

AnneMarie Lynen

Artur Fischer

Artur Schwörer

Bert Sakmann

Brian P. Schmidt

Charles Townes

Christian de Duve

Deutsche Telekom AG

DSM Nutritional Products Ltd

Edmond H. Fischer

ETO Group

Eva Lynen

Familie Graf Lennart Bernadotte af Wisborg

Fondazione Fidinam

Fredy and Regula Lienhard

Fresenius SE & Co. KGaA

GfK Nürnberg e.V.

GfK SE

Hans-Wilsdorf-Stiftung

Hendrik Leber

Hilti Foundation

Hovalwerk AG

Ivoclar Vivadent AG

Jack Steinberger

Jerome Karle

Joachim and Bärbel Milberg

Jörn Wilkening

Jungbunzlauer AG

Leopoldina Nationale Akademie der Wissenschaften

Liechtensteinische Landesbank AG

Lyndon L. Olson and Mrs. Olson

Maja Dornier

Paul Crutzen

Paula Hirsch

Peter D. Dornier

PwC PricewaterhouseCoopers AG

Robert Stolze

Ruth Schilling

Sal. Oppenheim jr. & Cie. KGaA

Salus Charity Foundation

Schindler Aufzüge AG

Simon W. and Alice I. Newman

Sparkasse Memmingen-Lindau-Mindelheim

Sparkassenverband Bayern

**UBS AG** 

Ulrich B. Stoll

umantis AG

Verwaltungs- und Privatbank AG Werner Arber Zumtobel Lighting GmbH

and the Friends of the Foundation

The Lindau Nobel Laureate Meetings would like to thank all benefactors for their support of the 65th Lindau Nobel Laureate Meeting.

#### PRINCIPAL BENEFACTORS

**AKB Stiftung** 

Alcoa Foundation

Audi AG

**BASF SE** 

Bayerisches Staatsministerium für Bildung und Kultus, Wissenschaft und Kunst, Elitenetzwerk Bayern

Bayer Science & Education Foundation

bayme - Bayerischer Unternehmensverband Metall und Elektro e.V.

Boehringer Ingelheim Stiftung

Bundesministerium für Bildung und Forschung (BMBF), Germany

 $Bundesministerium\ f\"ur\ Wissenschaft, Forschung\ und\ Wirtschaft, Wien,$ 

Austria

**Cabot Corporation** 

Carl Zeiss Stiftung

Deutsche Forschungsgemeinschaft (DFG)

Deutsche Telekom Stiftung

Else Kröner-Fresenius-Stiftung (EKFS)

EnBW Energie Baden-Württemberg AG

Festo AG & Co. KG

Fonds der Chemischen Industrie (FCI)

HANNOVER MESSE

Hansjörg Wyss Medical Foundation

International Lake Constance Conference (IBK)

Jacobs Foundation

Klaus Tschira Stiftung gGmbH

Land Baden-Württemberg

Linde AG

Mars, Incorporated

Merck KGaA

#### PRINCIPAL BENEFACTORS

Microsoft Corporation

Ministerium für Wissenschaft, Forschung und Kunst, Stuttgart, Germany

Ministry of Education, Higher Education and Research, France

National Research Foundation, Singapore

Robert Bosch Stiftung GmbH

Rolex S.A.

SAP SE

SANOFI

The OPEC Fund for International Development (OFID)

vbm - Verband der Bayerischen Metall- u. Elektro-Industrie e.V.

vbw - Vereinigung der Bayerischen Wirtschaft e.V.

Verband der Chemischen Industrie e.V. (VCI)

Volkswagen Group

Wilhelm und Else Heraeus-Stiftung

Wyss Charitable Endowment

### **BENEFACTORS**

Air Liquide S.A.

Alexander S. Onassis Public Benefit Foundation

bioMérieux S.A.

Christa und Hermann Laur-Stiftung

Deutscher Akademischer Austauschdienst (DAAD)

Deutsches Krebsforschungszentrum (DKFZ)

Eduard-Rhein-Stiftung

Elitenetzwerk Bayern

Fanelli Haag PLLC

**Fondation Institut Pasteur** 

Fondation Total

Förderverein Römerbad e.V.

Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V.

Helmholtz-Gemeinschaft Deutscher Forschungszentren e.V.

Hewlett-Packard, L.P.

IHK Schwaben

Intersky Luftfahrt GmbH

Jones Day

Lennart-Bernadotte-Stiftung

LIGHTHOUSE Marken-Navigation GmbH

Lindau Tourismus und Kongress GmbH

Lindauer Zeitung

LISTA Office AG

Lockheed Martin Corporation - Lockheed Environmental Systems & Technologies Co.

Mainau GmbH

MAN SE

Max-Planck-Gesellschaft zur Förderung der Wissenschaften e.V. (MPG)

McKinsey & Company, Inc.

Meckatzer Löwenbräu Benedikt Weiß KG

Mineralbrunnen Teinach GmbH

MS Management Service AG

Peter-Dornier-Stiftung

PwC PricewaterhouseCoopers AG

rose plastic AG

Safran S.A

Saint-Gobain S.A.

Siemens AG

Simon W. and Alice I. Newman Fund

SWS GmbH

Sparkasse Memmingen-Lindau-Mindelheim

Spielbank Lindau

Staatliche Lotterieverwaltung (Bayern)

Stadt Lindau (B)

Stadtverkehr Lindau (B) GmbH

Stadtwerke Lindau (B) GmbH & Co. KG

Steinhauser GmbH

Stifterverband für die Deutsche Wissenschaft e.V.

Stiftung van Meeteren

Tchibo GmbH

Telekommunikation Lindau (B) GmbH

Thales S.A.

The Bert L. and N. Kuggie Vallee Foundation

The Nobel Foundation

The Westminster Foundation

Unfallkrankenhaus Berlin

Warth & Klein Grant Thornton GmbH & Co. KG

Wein- und Obstgut Haug

Wilhelm Sander-Stiftung

Wissenschaftsgemeinschaft Gottfried Wilhelm Leibniz e. V.

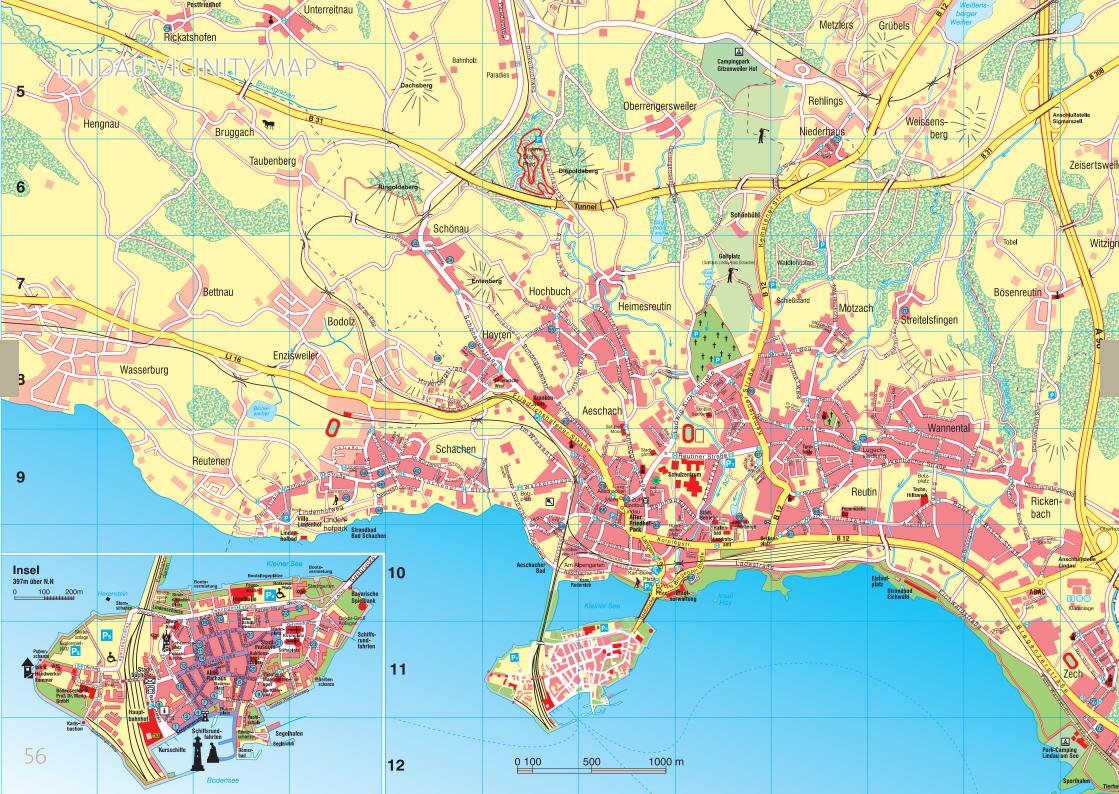
WMF AG

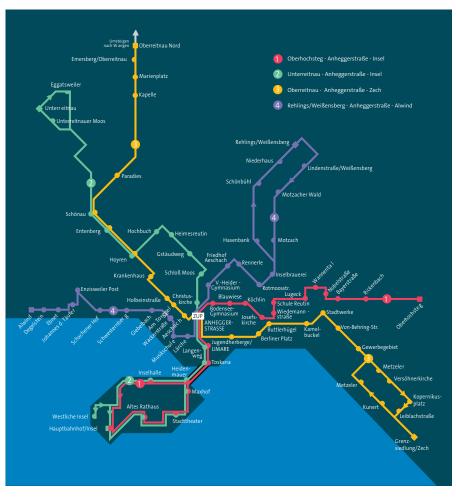
ZEIT-Stiftung Ebelin und Gerd Bucerius

Zumtobel Lighting GmbH

and anonymous benefactors







### Special Operating Hours during the Meeting

On Monday night, 29 June, the last buses leave at 00.40 hrs from the central connection point (ZUP) and serve all stops along their lines.

On Tuesday night, 30 June and Thursday night, 2 July the last buses leave at 23.40 hrs from the central connection point (ZUP) and serve all stops along their lines.

#### How to Read the Time Table

The time table on the opposite page shows operating hours and departure times for all four lines and both directions. The first three columns (earliest, Saturday, Sunday) indicate when the earliest bus runs from each stop, while the last columns show the last service. The two middle columns (every hour at) show when buses depart between the first and last service. Example: 24/54 means that this bus departs from the station every hour at minute 24 and 54 (e.g. at 15.24 hrs and 15.54 hrs).

	earliest Sat	turday	Sunday	every h	our at	latest		earliest So	aturday	Sunday	every h	our at	latest
Bus Line #1 from Oberhoch	steg via ZUF	P to Ma	ain Statio	n (Islan	d)		Bus Line #1 from Main Stat	tion (Island	) via ZU	P to Obe	rhochste	g	
Oberhochsteg	5.24	6.24	7.24	24	54	22.24	Hauptbahnhof/Insel	5.21	6.21	7.21	21	51	22.21
Rickenbach	5.25	6.25	7.25	25	55	22.25	Altes Rathaus	5.28	6.28	7.28	28	58	22.28
Bayerstraße	5.26	6.26	7.26	26 27	56 57	22.26	Stadttheater Maxhof	5.30	6.30	7.30 7.31	30 31	00	22.30 22.31
Nobelstraße Wannental	5.27 5.28	6.28	7.27 7.28	28	58	22.27	Toskana	5.31 5.33	6.31	7.31	33	03	22.31
Lugeck	5.29	6.29	7.29	29	59	22.29	Langenweg	5.34	6.34	7.34	34	04	22.33
Schule Reutin	5.30	6.30	7.30	30	00	22.30	Anheggerstraße (ZUP)	5.40	6.40	7.40	40	10	22.40
Wiedemannstraße	5.31	6.31	7.31	31	01	22.31	Bodensee-Gymnasium	5.41	6.41	7.41	41	11	22.41
Josefskirche	5.32	6.32	7.32	32	02	22.32	Blauwiese	5.42	6.42	7.42	42	12	22.42
Köchlin	5.34	6.34	7.34	34	04	22.34	Köchlin	5.43	6.43	7.43	43	13	22.43
Blauwiese	5.35	6.35	7.35	35	05	22.35	Josefskirche	5.44	6.44	7.44	44	14	22.44
Bodensee-Gymnasium	5.36	6.36	7.36	36	06	22.36	Wiedemannstraße	5.45	6.45	7.45	45	15	22.45
Anheggerstraße (ZUP)	5.40	6.40	7.40	40	10 11	22.40	Schule Reutin	5.46	6.46	7.46	46 47	16	22.46
Langenweg Toskana	5.41 5.42	6.41	7.41 7.42	41 42	12	22.41 22.42	Lugeck Wannental	5.47 5.48	6.47	7.47 7.48	47	17 18	22.47 22.48
Heidenmauer	5.43	6.43	7.42	43	13	22.42	Nobelstraße	5.49	6.49	7.49	49	19	22.48
Inselhalle	5.44	6.44	7.44	44	14	22.44	Baverstraße	5.50	6.50	7.50	50	20	22.50
Hauptbahnhof/Insel an	5.46	6.46	7.46	46	16	22.46	Rickenbach	5.51	6.51	7.51	51	21	22.51
,							Oberhochsteg an	5.53	6.53	7.53	53	23	22.53
Bus Line #2 from Unterreit	nau via ZUP	to Ma	in Statio	n (Island	1)		Bus Line #2 from Main Sta	tion (Island	l) via ZU	IP to Unt	erreitnaı	1	
Lintarraitanu	5.24	6.24	7.24	24	54	22.24	Haunthahnhof/Incol	5.26	6.26	7.26	26	56	22.26
Unterreitnau Eggatsweiler	5.24	6.25	7.24	25	55	22.24	Hauptbahnhof/Insel Altes Rathaus	5.28	6.28	7.28	26 28	58	22.28
Schönau	5.28	6.28	7.28	28	58	22.23	Stadttheater	5.30	6.30	7.20	30	00	22.20
Entenberg	5.29	6.29	7.29	29	59	22.29	Maxhof	5.31	6.31	7.31	31	01	22.31
Hoyren	5.30	6.30	7.30	30	00	22.30	Toskana	5.33	6.33	7.33	33	03	22.33
Hochbuch	5.32	6.32	7.32	32	02	22.32	Langenweg	5.34	6.34	7.34	34	04	22.34
Heimesreutin	5.33	6.33	7.33	33	03	22.33	Anheggerstraße (ZUP)	5.40	6.40	7.40	40	10	22.40
Gstäudweg	5.34	6.34	7.34	34	04	22.34	Christuskirche	5.41	6.41	7.41	41	11	22.41
Schloß Moos	5.35	6.35	7.35	35	05	22.35	Schloß Moos	5.42	6.42	7.42	42	12	22.42
Christuskirche	5.36 5.40	6.36	7.36 7.40	36	06	22.36 22.40	Gstäudweg	5.43 5.44	6.43	7.43 7.44	43	13	22.43 22.44
Anheggerstraße (ZUP)	5.40	6.41	7.40	40 41	10 11	22.40	Heimesreutin Hochbuch	5.44	6.44	7.44	44 45	14 15	22.44
Langenweg Toskana	5.42	6.42	7.41	41	12	22.41	Hoyren	5.47	6.47	7.43	47	17	22.43
Heidenmauer	5.43	6.43	7.42	43	13	22.42	Entenberg	5.48	6.48	7.48	48	18	22.48
Inselhalle	5.44	6.44	7.44	44	14	22.44	Schönau	5.49	6.49	7.49	49	19	22.49
Westliche Insel	5.45	6.45	7.45	45	15	22.45	Unterreitnau an	5.53	6.53	7.53	53	23	22.53
Hauptbahnhof/Insel an	5.50	6.50	7.50	50	20	22.50							
Bus Line #3 from Oberreitr	nau Nord via	ZUP to	o Grenzsi	edlung,	Zech		Bus Line #3 from Grenzsie	dlung/Zech	ı via ZUI	P to Obei	reitnau I	Nord	
						22.22							22.25
Oberreitnau Nord	5.23 5.24	6.23	7.23 7.24	23 24	53 54	22.23	Grenzsiedlung/Zech Kunert	5.25 5.26	6.25	7.25 7.26	25 26	55 56	22.25 22.26
Emersberg/Oberreitnau Marienplatz/Oberreitnau	5.25	6.25	7.24	25	55	22.24	Metzeler	5.27	6.27	7.27	27	57	22.27
Kapelle	5.26	6.26	7.26	26	56	22.26	Gewerbegebiet	5.29	6.29	7.29	29	59	22.29
Paradies	5.27	6.27	7.27	27	57	22.27	Von-Behring-Straße	5.30	6.30	7.30	30	00	22.30
Schönau	5.29	6.29	7.29	29	59	22.29	Stadtwerke	5.30	6.30	7.30	30	00	22.30
Entenberg	5.30	6.30	7.30	30	00	22.30	Kamelbuckel	5.31	6.31	7.31	31	01	22.31
Hoyren	5.31	6.31	7.31	31	01	22.31	Buttlerhügel	5.32	6.32	7.32	32	02	22.32
Krankenhaus	5.33	6.33	7.33	33	03	22.33	Berliner Platz	5.33	6.33	7.33	33	03	22.33
Holbeinstraße	5.34	6.34	7.34	34	04	22.34	Jugendherberge/LIMARE	5.35	6.35	7.35	35	05	22.35
Am Torggel	5.35	6.35	7.35	35	05	22.35	Anheggerstraße (ZUP)	5.40	6.40	7.40	40	10	22.40
Aeschach	5.36	6.36	7.36	36	06	22.36	Aeschach	5.41	6.41	7.41	41	11	22.41
Anheggerstraße (ZUP) Jugendherberge/LIMARE	5.40 5.42	6.40	7.40 7.42	40 42	10 12	22.40 22.42	Am Torggel Holbeinstraße	5.42 5.43	6.42	7.42 7.43	42 43	12 13	22.42
Berliner Platz	5.43	6.43	7.42	43	13	22.42	Krankenhaus	5.44	6.44	7.44	44	14	22.43
Buttlerhügel	5.44	6.44	7.44	44	14	22.43	Hoyren	5.45	6.45	7.45	45	15	22.44
Kamelbuckel	5.45	6.45	7.45	45	15	22.45	Entenberg	5.46	6.46	7.46	46	16	22.46
Stadtwerke	5.46	6.46	7.46	46	16	22.46	Schönau	5.47	6.47	7.47	47	17	22.47
Von-Behring-Straße	5.46	6.46	7.46	46	16	22.46	Paradies	5.48	6.48	7.48	48	18	22.48
Gewerbegebiet	5.47	6.47	7.47	47	17	22.47	Kapelle	5.49	6.49	7.49	49	19	22.49
Metzeler	5.48	6.48	7.48	48	18	22.48	Marienplatz	5.50	6.50	7.50	50	20	22.50
Versöhnerkirche	5.49	6.49	7.49	49	19	22.49	Oberreitnau Nord an	5.52	6.52	7.52	52	22	22.52
Kopernikusplatz/Zech	5.52	6.52	7.52	52	22	22.52							
Leiblachstraße Grenzsiedlung/Zech an	5.52 5.55	6.52	7.52 7.55	52 55	22 25	22.52 22.55							
Grenzaleulung/zeen all	رد.د	0.55	1.55	22	23	22.33							

Bus Line #4 from Rehlings/W	/eißensb	erg via Z	UP to Alv	wind			Bus Line #4 from Alwind via ZUP to Rehlings/Weißensberg						
D 11: 64:20 1	F 22	6.22	7.22	22		22.22		5.24		704	2.4		22.2
Rehlings/Weißensberg	5.23	6.23	7.23	23	53	22.23	Alwind	5.24	6.24	7.24	24	54	22.2
Lindenstraße/Weißensberg	5.25	6.25	7.25	25	55	22.25	Degelstein	5.25	6.25	7.25	25	55	22.25
Motzacher Wald	5.28	6.28	7.28	28	58	22.28	Ebnet	5.26	6.26	7.26	26	56	22.2
Motzach	5.29	6.29	7.29	29	59	22.29	Johannes d. Täufer	5.27	6.27	7.27	27	57	22.2
Inselbrauerei	5.30	6.30	7.30	30	00	22.30	Enzisweiler Post	5.28	6.28	7.28	28	58	22.2
Rotmoosstraße	5.31	6.31	7.31	31	01	22.31	Schachener Hof	5.30	6.30	7.30	30	00	22.30
Rennerle	5.33	6.33	7.33	33	03	22.33	Schwesternberg	5.31	6.31	7.31	31	01	22.3
Friedhof Aeschach	5.34	6.34	7.34	34	04	22.34	Giebelbach	5.32	6.32	7.32	32	02	22.32
VHeider-Gymnasium	5.35	6.35	7.35	35	05	22.35	Wackerstraße	5.33	6.33	7.33	33	03	22.3
Anheggerstraße (ZUP)	5.40	6.40	7.40	40	10	22.40	Musikschule	5.34	6.34	7.34	34	04	22.3
Lärche	5.41	6.41	7.41	41	11	22.41	Lärche	5.35	6.35	7.35	35	05	22.35
Musikschule	5.42	6.42	7.42	42	12	22.42	Anheggerstraße (ZUP)	5.40	6.40	7.40	40	10	22.40
Wackerstraße	5.43	6.43	7.43	43	13	22.43	VHeider-Gymnasium	5.41	6.41	7.41	41	11	22.43
Giebelbach	5.44	6.44	7.44	44	14	22.44	Friedhof Aeschach	5.42	6.42	7.42	42	12	22.42
Schwesternberg	5.45	6.45	7.45	45	15	22.45	Rennerle	5.43	6.43	7.43	43	13	22.43
Schachener Hof	5.46	6.46	7.46	46	16	22.46	Rotmoosstraße	5.45	6.45	7.45	45	15	22.45
Enzisweiler Post	5.48	6.48	7.48	48	18	22.48	Inselbrauerei	5.46	6.46	7.46	46	16	22.46
Johannes d. Täufer	5.49	6.49	7.49	49	19	22.49	Hasenbank	5.47	6.47	7.47	47	17	22.47
Ebnet	5.50	6.50	7.50	50	20	22.50	Schönbühl	5.50	6.50	7.50	50	20	22.50
Degelstein	5.51	6.51	7.51	51	21	22.51	Niederhaus	5.51	6.51	7.51	51	21	22.53
Alwind an	5.53	6.53	7.53	53	23	22.53	Rehlings/Weißensberg an	5.52	6.52	7.52	52	22	22.5
							3,						

### GOOD TO KNOW

### **Opening Hours Registration Desk**

Sunday, 28 June 10.00 – 20.00

Monday, 29 June 08.30 – 13.30

Tuesday, 30 June 08.30 – 12.30 14.00-19.00

Wednesday, 1 July 08.30 – 19.00

Thursday, 2 July 08.30 – 13.30

### On site Contacts

The office can be reached during the meeting as follows:

Registration Desk +49 8382 260-633 Fax -660

+49 8382 27731-0

Press Office +49 8382 260-632

email info@lindau-nobel.org

Emergency 112

Taxi +49 8382 6006 or +49 8382 4455

### GOOD TO KNOW

### Scientific Chairmen of the 65th Lindau Nobel Laureate Meeting

### Lars Bergström

Secretary of Nobel Committee for Physics Nobel Committee for Physics, The Royal Swedish Academy, Stockholm, Sweden Professor of Theoretical Physics, Stockholm University

### Rainer Blatt

Member of the Austrian Academy of Sciences, Austria Institute of Experimental Physics, University of Innsbruck, Austria

### Astrid Gräslund

Professor of Biophysics, Department of Biochemistry and Biophysics, University of Stockholm, Sweden

### Stefan H. E. Kaufmann

Director, Max Planck Institute for Infection Biology, Berlin, Germany Professor for Microbiology and Immunology, Charité University Clinics, Berlin, Germany

#### Klas Kärre

Chairperson, Nobel Assembly for Physiology or Medicine at Karolinska Institutet, Stockholm, Sweden Professor in Molecular Immunology, Department of Microbiology, Tumor and Cell Biology, Karolinska Institutet. Stockholm. Sweden

### Wolfgang Lubitz

Director, Max Planck Institute for Chemical Energy Conversion, Mülheim / Ruhr, Germany

### **Future Meetings**

66th Lindau Nobel Laureate Meeting (Physics)

26 June – 1 July 2016

67<sup>th</sup> Lindau Nobel Laureate Meeting (Chemistry)

25 June – 30 June 2017

6<sup>th</sup> Lindau Meeting on Economic Sciences

22 – 26 August 2017

68th Lindau Nobel Laureate Meeting (Physiology & Medicine)

24 June – 29 June 2018



### **Heidelberg Laureate Forum**

An Innovative Event for Highly Talented Young Mathematicians and Computer Scientists

"Mathematics and computer science pervade all aspects and spheres of life. They provide the foundation for today's highly engineered and modern life, and they belong to our culture. Their social relevance will continue to grow."

Dr. h. c. Dr.-Ing. E. h. Klaus Tschira Founder of the Heidelberg Laureate Forum Foundation and the Klaus Tschira Stiftung

As the world rapidly modernizes, the results and applications of mathematics and computer science have cemented their importance at the forefront of our society. Although Nobel Prizes are not granted in mathematics or computer science, awards of equal prestige are bestowed on the scientists for outstanding achievements in those disciplines: The Abel Prize (mathematics), the Fields Medal (mathematics), the Nevanlinna Prize (theoretical computer science/mathematics), and the ACM A.M. Turing Award (computer science) honor the laureates and their paramount accomplishments.

The annual Heidelberg Laureate Forum (HLF) connects the laureates of mathematics and computer science with the preeminent young researchers from all over the world.

Upcoming events:

3rd Heidelberg Laureate Forum August 23-28, 2015

4th Heidelberg Laureate Forum September 18-23, 2016



### www.heidelberg-laureate-forum.org







### NOTES

■ Kindly note the information about this year's Heidelberg Laureate Forum, bringing together young. researchers and award-winning mathematicians and computer scientists. The Heidelberg Laureate Forum was established by Klaus Tschira in 2013, inspired by the Lindau Nobel Laureate Meetings. Both institutions closely collaborate and work towards the same goals.

Copyright 2015: The Lindau Nobel Laureate Meetings. All information (as of 30 May 2015) is provided as an indication only; changes may occur at any time without prior notice. Programme Editors: Susanne Wieczorek, Katja Merx, Wolfgang Huang, Nikolaus Turner



Council for the Lindau Nobel Laureate Meetings Foundation Lindau Nobel Laureate Meetings

Alfred-Nobel-Platz 1 88131 Lindau Germany

www.lindau-nobel.org