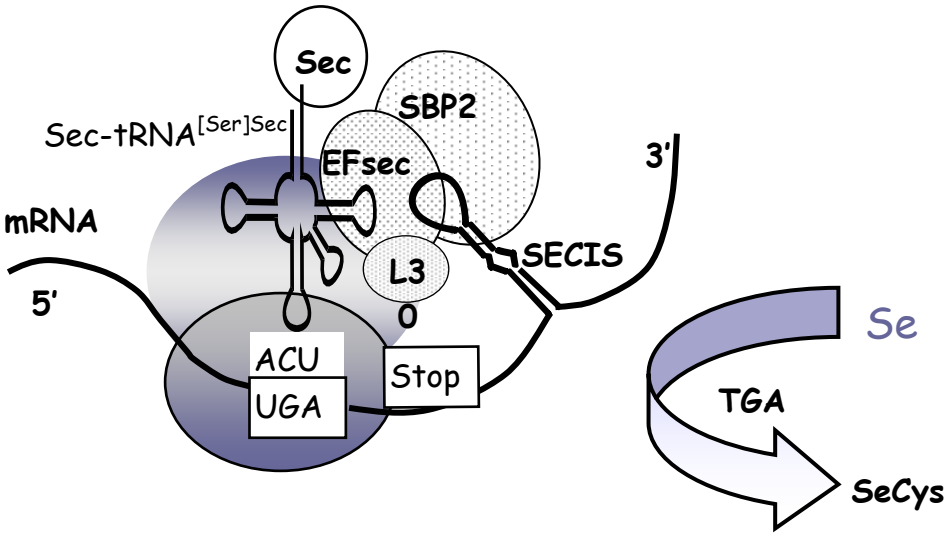
# 4th & Final Symposium DFG Priority Programme 1087 Selenoproteins

**Berlin, June 29-30 2007**

## Programme

# The Essential Trace Element Selenium

Biosynthesis, Structure and Function of Selenoproteins




**Location:** Institut für Experimentelle Endokrinologie & Endokrinologisches Forschungs-Centrum der Charité EnForCé, Campus Charité Mitte;
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**Friday, June 29 2007**

**Session 1: Structure, biosynthesis and regulation of Selenoproteins**

8.30 Registration

8.45 Welcome and Introduction: Dr. Raffler, DFG & Josef Köhrle, Berlin

9:00 Markus Wahl, Göttingen: Crystal structure analyses of selenoprotein biosynthesis

9:30 Marina Rodnina, Witten-Herdecke: Molecular mechanisms of selenocysteine incorporation in bacterial translation

10:00 Gerd Vorbrüggen, Göttingen: Selenoproteins in *Drosophila* : conserved mechanism for incorporation but not essential

10:30 Alain Lescure, Strasbourg: The role of selenoprotein N in muscle development and function

11:10 Coffee Break

11:30 Lutz Schomburg & Ulrich Schweizer: Gender-specific differences in the regulation of selenoprotein expression

12:00 Holger Bertelsmann & Antonios Kyriakopoulos: Functions of selenium-containing proteins in the male reproductive system

12:30 Leopold Flohé, Sandra Pilawa, Helena Sztajer, Matilde Maiorino & Fulvio Ursini. Magdeburg / Braunschweig / Padova: The transformation of PHGPx during spermiogenesis: a paradigm for alternate functions of glutathione peroxidases

13:00-14:30 Lunch

**Session 2 Lessons on selenoprotein functions from knockout and transgenic mouse models**

14:30 Marcus Conrad, Munich: Distinct mouse models to investigate the physiological role of PHGPx

15:00 Markus Brielmeier, Munich: Generation and characterization of mitochondrial thioredoxin reductase knockout mice: an update

15:30 Ulrich Schweizer, Berlin: Selenoproteins and the brain

16:00 Ray Burk, Nashville: ApoER2 is a Receptor for Selenoprotein P

16:45-17:15 Coffee Break

**Session 3 Function of Selenoproteins**

17:15 Arne Holmgren, Stockholm: Thioredoxin reductase in selenium deficiency and as a drug target

18:00 Stephan Gromer, Heidelberg: Selenoproteins in Trypanosomes - a progress report

18:30 Happy hour: chatting, networking, wine & cheese

**Saturday, June 30, 2007**

**Session 4: Selenoproteins, antioxidative function, and cancer**

8:30 Anja Bräuer & Nicolai Savaskan, Berlin: Selenium targets specific selenoprotein expression in microglial cells

9:00 Christoph Ufer, Astrid Borchert, Hartmut Kühn, Berlin: Expression regulation of the Phospholipid Hydroperoxide Glutathione Peroxidase

9:30 Josef Köhrle & Cornelia Schmutzler, Berlin: Studies on the expression, function and regulation of selenoproteins of the thyroid

10:00 Holger Steinbrenner, Bodo Speckmann, Peter Brenneisen, Helmut Sies, Düsseldorf: "Selenoprotein P: regulation and antioxidative function

10:30 Coffee break

11:00 Björn Åkesson, Lund: Selenoproteins and other selenocompounds in mammary tissue and milk.

11:45 Katja Becker, Giessen: The x-ray structure of human thioredoxin reductase-1 as basis for targeted drug development

12:15 Regina Brigelius-Flohé, Potdam: Glutathione peroxidases in cancer

12:45 JE Hesketh, Newcastle: Polymorphisms of the human selenogenome

13:30 Ludger Wessjohann, Wolfgang Brandt, Alex Schneider, Halle: The significance of the local environment and physicochemical properties of selenium (vs. sulfur) for the elements role in proteins

14:00 DFG Representative & Coordinator: Conclusions, summary, final remarks & Farewell

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NOTABENE: Every Speaker must keep free 10 (in words: TEN) minutes of his allocated time for discussion! This meeting is intended to have a workshop character in a communication-friendly environment.

**Organisation & Contact:**

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