



Phospholipid Research Center

“Progress in Pharmaceutical R&D on Phospholipids”

The Phospholipid Research Center – An Introduction

Semyakin-Ovchinnikov Institute of Bioorganic Chemistry RAS, Moscow

PD DR. HABIL. SIMON DRESCHER

PHOSPHOLIPID RESEARCH CENTER, HEIDELBERG, GERMANY

PRC WORKSHOP | 12.10.2021

History

Founded in September 2006 by:

- A group of international scientists
- Lipoid GmbH/Germany
- Phospholipid GmbH/Germany

Non-profit organization:

- Independent and self-contained

Management team:

- PD Dr. Simon Drescher
- Britta Merz
- *tba*

Honorary President – Dr. Herbert Rebmann



HIGHLIGHTS

98

FUNDED PROJECTS

250+

PUBLICATIONS

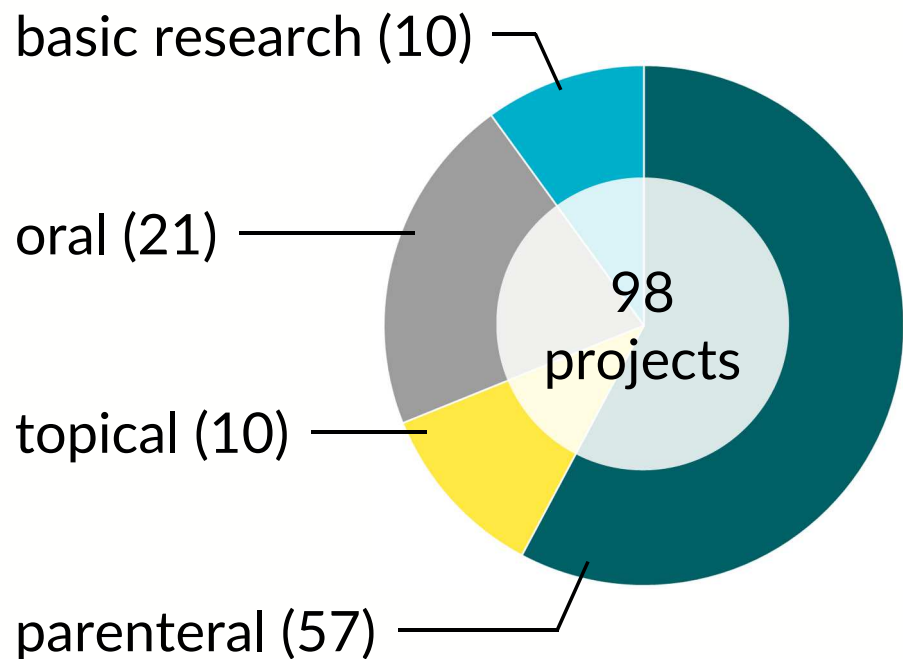
80+

MEMBERS



Phospholipid Research Center

Funded Projects



- stimuli-responsive liposomes
- targeted liposomes
- exosomes
- further liposomal applications
- further parenteral applications (without liposomes)



HIGHLIGHTS

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250+

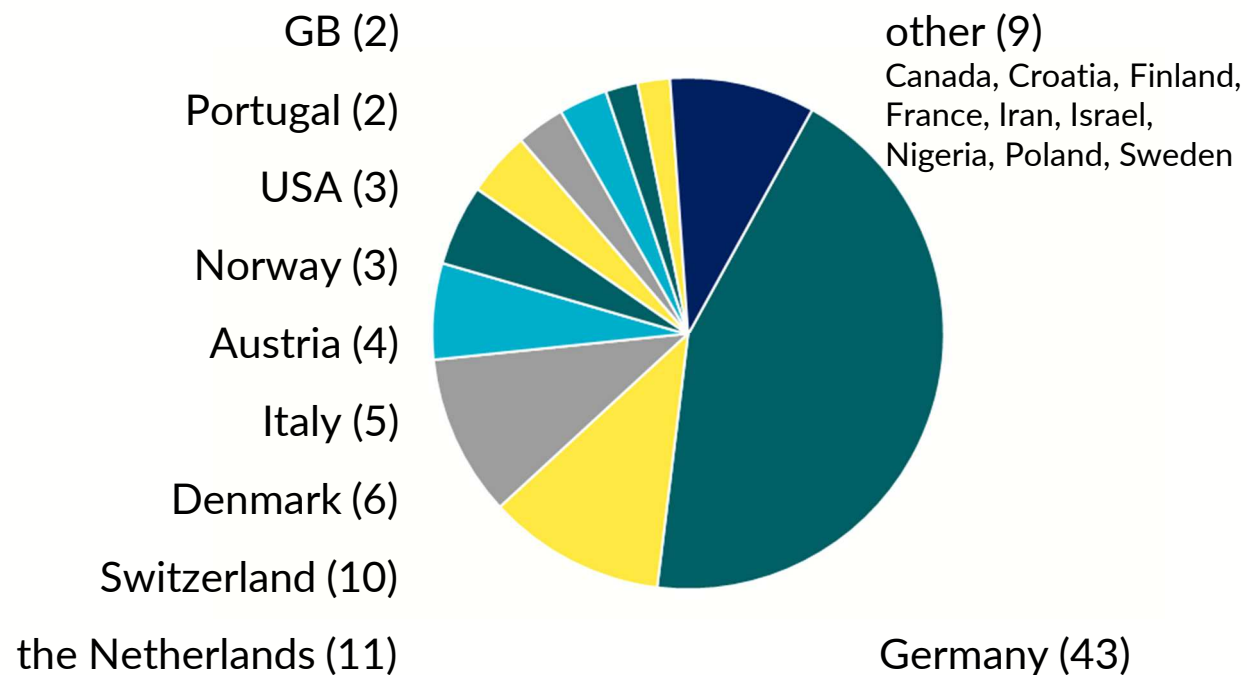
PUBLICATIONS

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MEMBERS



Funded Projects



Review: Drescher and van Hoogevest, The Phospholipid Research Center: Current Research in Phospholipids and Their Use in Drug Delivery. *Pharmaceutics* 2020, 12, 1235.

★
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Mission

The **Phospholipid Research Center** is dedicated to enhance the use of various kinds of phospholipids by:

- Promoting the use of phospholipids in pharmaceuticals
- Sharing information among scientists and practitioners
- Expanding knowledge about phospholipids and their applications

Sponsoring

Networking

Information

Scientific Advisory Council

Prof. Dr. Alfred Blume

University Halle/DE

Biophysics of phospholipids

Prof. Dr. Gert Storm

University Utrecht/NL

Liposomal delivery; drug delivery

Dr. Ralf-Olaf Quinkert

Lipoid GmbH/DE

Phospholipid analytics

Prof. Dr. Gert Fricker

University Heidelberg/DE

Oral drug delivery systems, brain delivery, *in vitro* models to study transport mechanisms

Prof. Dr. Andreas Koeberle

University Innsbruck/AT

Biochemical activity, phospholipids in delivery systems, lipid metabolism

Prof. Dr. Judith Kuntsche

University Southern Denmark/DK

Pharmaceutical technology phospholipids/liposomes/cochleates

Prof. Dr. Paola Luciani

University Bern/CH

Physiological action, phospholipids, liposomes

Dr. Frank Martin

Delpor Inc./USA

Broad range of expertise in drug delivery systems / liposomal dosage forms

Dr. Peter Hölig

Lipoid GmbH/DE

Industrial applications

PD Dr. Peter van Hoogevest

Pharmanovation Consulting/DE/CH/NL

Drug delivery, Industrial applications



AREAS OF EXPERTISE

Technological Aspects

- Stability of phospholipids
- Stability of pharmaceutical formulations
(e.g. emulsions, liposomes, mixed micelles...)

Physiological Aspects

- Absorption of phospholipids
- Effects of phospholipids on the absorption of active pharmaceutical ingredients
- Metabolism



AREAS OF EXPERTISE

Toxicological Aspects

- Natural phospholipids vs. synthetic phospholipids
- Selection of suitable phospholipids for particular applications

Analytical Aspects and Development of Analytical Standards

- Quantification of phospholipids
- Analytics of impurities, by-products, and degradation products
- Detection of proteins
- Verification of allergenic potentials



ACTIVITIES: PROJECT SPONSORING

Research Proposal

- Encouragement of research groups to apply for project sponsoring (PhD, Postdoc)
- **Deadline: May 31 and November 30**

Workshop Proposal

- Promotion of events offering practical demonstration courses and lively discussion rounds



ACTIVITIES:
MEETINGS
AND SYMPOSIA

Researcher's Day

Main objective is to discuss the progress of the funded projects and to offer a platform for discussion and the exchange of scientific knowledge.

Symposia “Phospholipids in Pharmaceutical Research” 2009 – 2019, biannually

- Ca. 150–175 participants from all over the world (60 % from academia, 40 % from the industry)
- Up to sixty posters
- Highly reputed speakers

Save the date
September 12-13, 2022



ACTIVITIES: AWARDS

Poster Awards

Thudichum Young Scientist Award

For outstanding publications that focus on recent significant contributions to research into phospholipids

*++ Apply ++
May 15 - August 15*

Thudichum Life Award

Honors lifelong, outstanding, and innovative scientific research in the field of phospholipids

- 2017: Professor Dr. Daan Crommelin (Utrecht University)
- 2019: Professor Dr. Yechezkel (Chezy) Barenholz (Hebrew University of Jerusalem)



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CENTER.COM

Visit our website for more information

- News about phospholipids
- Publications (latest review)
- Upcoming events
- Funding of projects
- Research & Event proposal
- Funded projects
(every project will get its own page)
- Awards
- Advantages for members

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