

# Fall symposium

## 40 YEARS Bio-Pharmaceutical Sciences Celebration 40 years innovation

40 years BPS

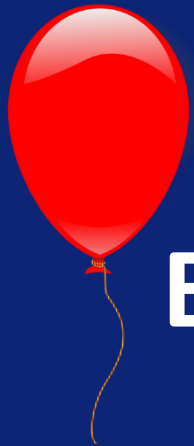
Prof. dr. Douwe D. Breimer  
(founder)



Sinds 1885

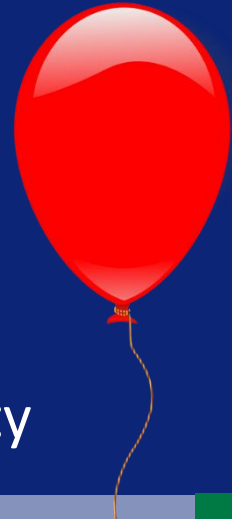
L.P.S.V. „Aesculapius”

LACDR



# 40 years

# BIO-PHARMACEUTICAL SCIENCES (BPS)



Douwe D. Breimer, PhD, DSc  
(Em) Professor of Pharmacology (since 1975)  
Past Scientific Director of LACDR  
Past Rector Magnificus & President of Leiden University

Fall Symposium LACDR, November 28<sup>th</sup>, 2024



Universiteit Leiden

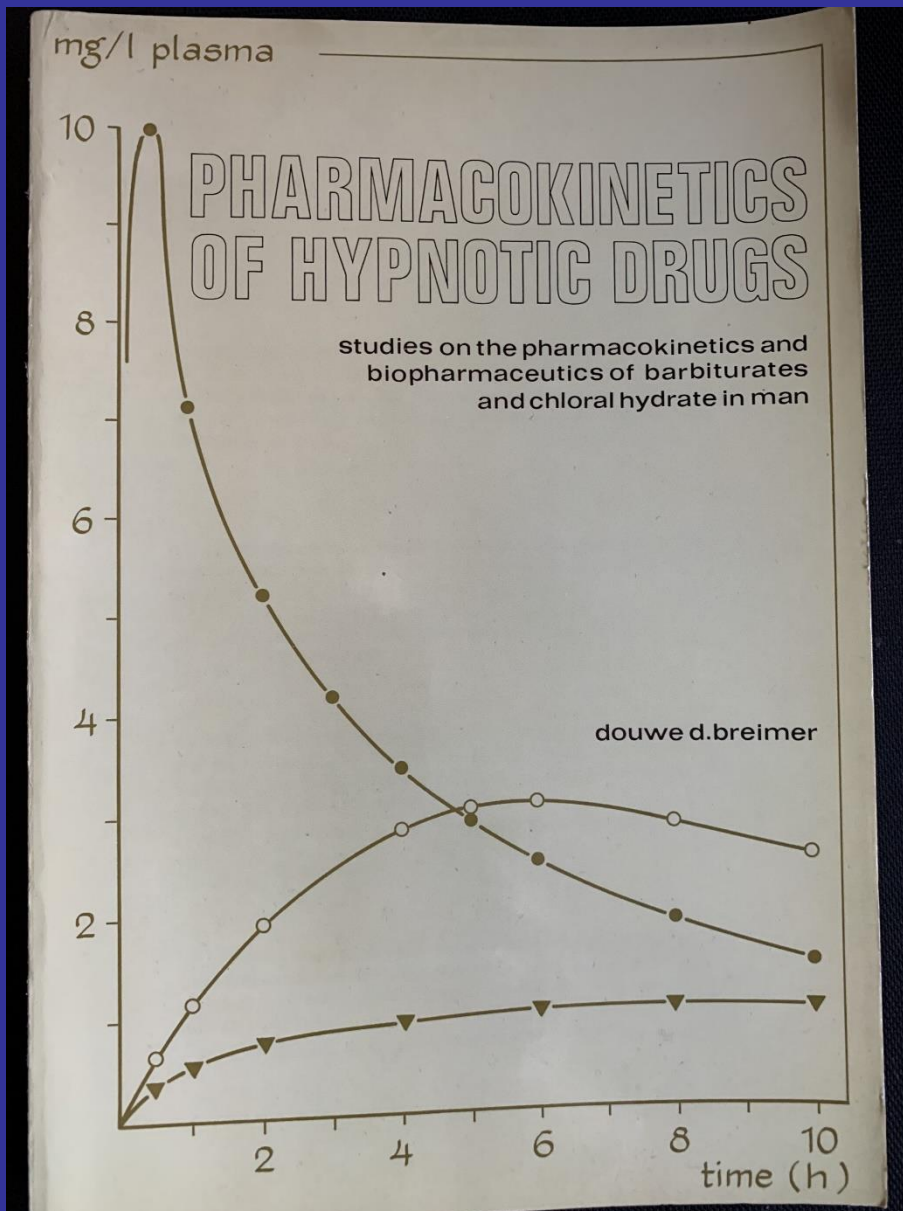
# LACDR



Pharmacy

University of Groningen

1962-1970



PhD at the University of Nijmegen  
1970-1974

1975 →

Beluissluitende

# Wij Juliana, bij de gratie Gods, Koningin der Nederlanden, Prinses van Oranje-Nassau, enz, enz, enz

Besluit van  
14 april 1975  
nr. 22  
houdende benoeming van  
dr. D.D. Breimer tot ge-  
woon hoogleraar aan de  
rijksuniversiteit te  
Leiden.

Op de voordracht van de staatssecretaris van onderwijs en weten-  
schappen, dr. G. Klein, van 4 april 1975, nr. 261669, Directoraat-  
Generaal voor het wetenschappelijk onderwijs;

Gelet op de Wet op het wetenschappelijk onderwijs en op de Wet  
universitaire bestuurshervorming 1970;

HEB BEN GOEDGEVONDEN EN VERSTAAN:

met ingang van de dag waarop hij zijn ambt zal aanvaarden te be-  
noemen tot gewoon hoogleraar in de faculteit der wiskunde en natuur-  
wetenschappen aan de rijksuniversiteit te Leiden om werkzaam te  
zijn op het vakgebied van de farmacologie:

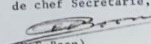
dr. Douve Durk Breimer,

geboren 24 november 1943 te Oudemirdum, thans houder van een onder-  
wijsopdracht aan de rijksuniversiteit te Leiden.

Onze minister van onderwijs en wetenschappen is belast met de uit-  
voering van dit besluit, waarvan afschrift zal worden gezonden aan  
de Algemene Rekenkamer.

Soestdijk, 14 april 1975  
(get.) J U L I A N A

De staatssecretaris van  
onderwijs en wetenschappen,  
(get.) G.Klein

Voor afschrift,  
de chef Secretarie,  
  
(H.F. Boon)



Oratie in het Groot Auditorium van het  
Academiegebouw in Leiden op 29 oktober 1976

< Koninklijk Besluit van 14 april 1975 van de benoeming  
tot gewoon hoogleraar in de farmacologie aan de  
Rijksuniversiteit Leiden. Het ambt werd aanvaard  
op 1 mei 1975.

# Subfaculty of Pharmacy in 1975

(major emphasis on the drug product)

- pharmacology
- pharmaceutical technology/dispensing
- analytical chemistry/quality control
- pharmacognosy/medicinal plants
  
- New: pharmacology and therapeutics  
→ drug action and use

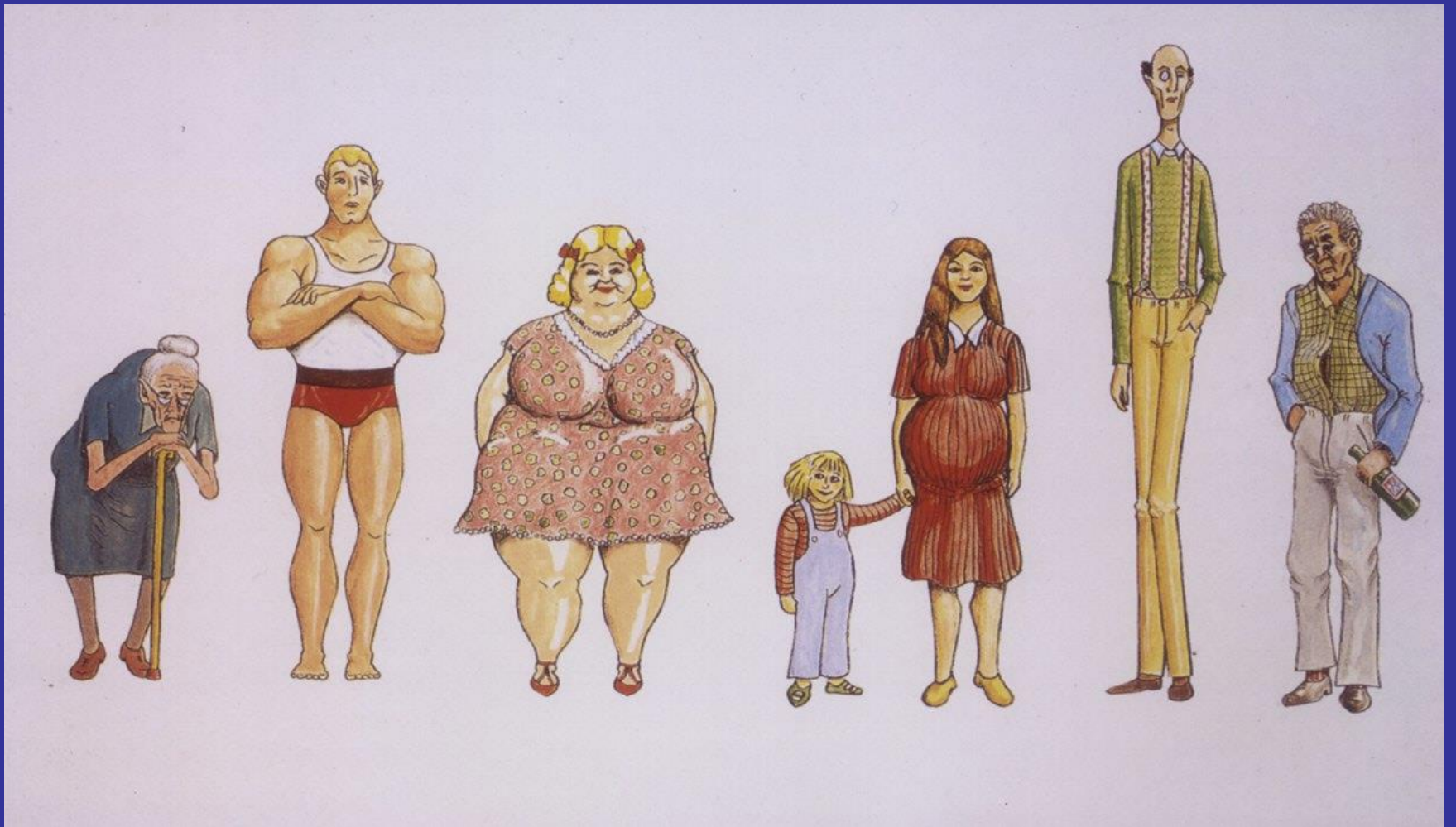
DR. D. D. BREIMER

FARMACOTHERAPIE  
OP MAAT



UNIVERSITAIRE PERS LEIDEN

Leiden University  
Inaugural Lecture 1976





# 1983: Major budget cuts for universities by the government

- Leiden and Amsterdam had to stop (close down) pharmacy

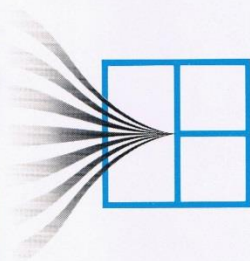
(in Dutch: de beruchte **TVC-operatie**:  
Taak Verdeling en Concentratie van opleidingen  
en onderzoek)

# Sunday, June 19<sup>th</sup> 1983 (Father's Day)

- Meeting in the private garden of the Dir General of the Ministry to negotiate a transition in Leiden into a new and innovative *Center for Bio-Pharmaceutical Sciences* (BPS) (two days later agreement between Minister Deetman and Leiden University)

*a stunning start!*

# PROFILE OF A NEW CENTER FOR MULTIDISCIPLINARY DRUG RESEARCH



Center for Bio-Pharmaceutical Sciences  
Leiden University, The Netherlands

# Mission of BPS 1984

- To conduct innovative multidisciplinary drug research
  - To organize an innovative teaching programme into which all relevant disciplines for drug research are integrated
  - To organize a graduate programme leading into a PhD degree
  - To organize international courses and symposia relevant to innovative drug research
- To stimulate and support collaboration with the pharmaceutical industry

# Inauguration Symposium February 1985:

“ Bio-Pharmaceutical Sciences:  
Towards a University/Industry Partnership”  
Chaired by Prof. Dr. A.A.H. Kassenaar, Rector Magnificus



# BPS – Seven disciplines - 1984

- Medicinal chemistry (Prof. Willem Soudijn)
- Pharmacology (Prof. Douwe Breimer)
- Toxicology (Prof. Gerard Mulder)
- Biopharmaceutics (Prof. Theo van Berkel)
- Pharmaceutical Technology (Prof. Hans Junginger)
- Bioanalytical chemistry (Prof. Jan van der Greef)
- Plant cell biotechnology (Prof. Rob Verpoorte)

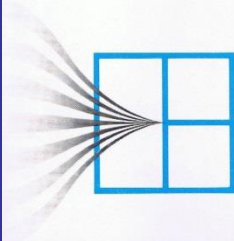
Total budget: 5 Mio guilders (2.3 Mio Euros)

Each discipline: 1 professor, 2 U(h)d's, 4 PhD's, 2 technicians

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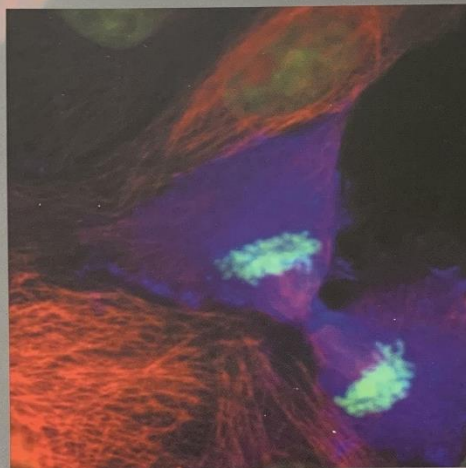
# PROGRESS REPORT

1984-1985



Center for Bio-Pharmaceutical Sciences  
Leiden University, The Netherlands

# PROGRESS REPORT



1998



Leiden/Amsterdam  
Center for Drug Research

Universiteit Leiden/Vrije Universiteit Amsterdam



# Start of the teaching programme BPS in 1985

- Entrance only with a propaedeuse in chemistry, biology or pharmacy (from Groningen or Utrecht)
  - 6 in 1985
  - 17 in 1986
  - 27 in 1987 etc
- In 1994 permission to also start with a first year programme
  - 47 in 1995
  - 57 in 1996 etc
- In 2002 the Bachelor/Master system was introduced
  - 36 in 2002
  - 110 in 2009
  - 214 in 2014 (plus 80 masters)
  - 416 in 2020 (plus 126 masters)
  - 255 in 2024 (plus 128 masters)

# 1987 Center for Human Drug Research

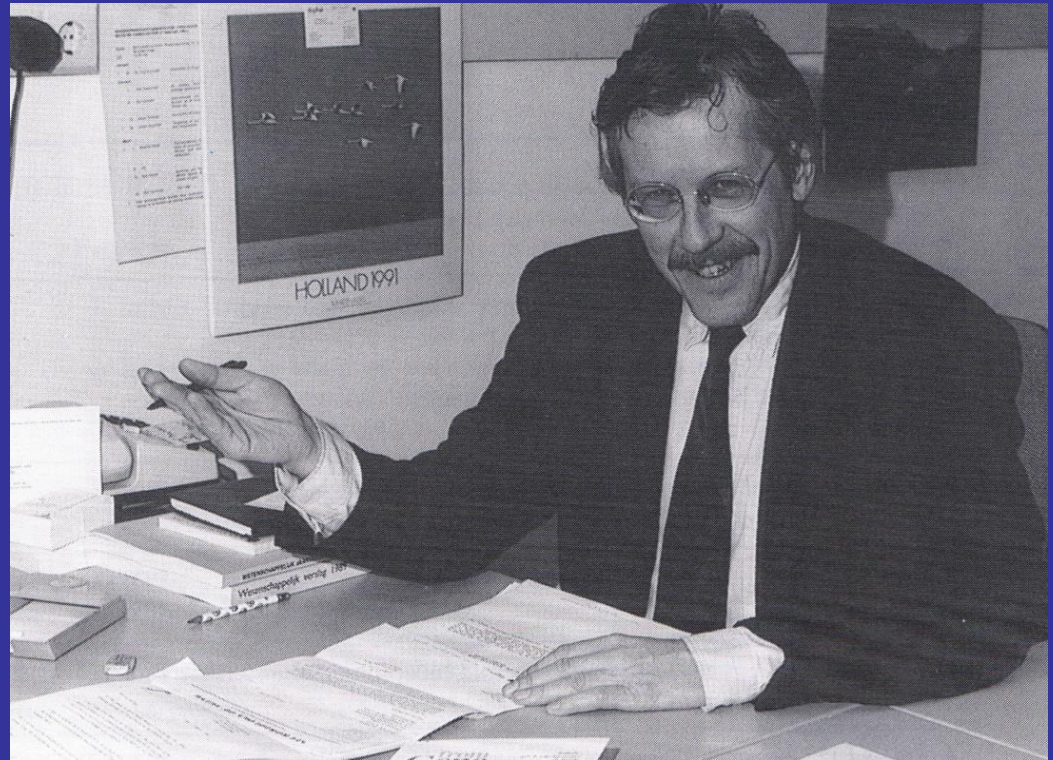


Prof. Adam Cohen  
(Clinical pharmacology)  
Independent Foundation

# 1989 Medical Pharmacology

(Faculty of Medicine/LUMC)

incorporated into the Center for Bio-Pharmaceutical Sciences (BPS) → Prof. Ron de Kloet



# 1990 Leiden/Amsterdam Center for Drug Research (LACDR)

Interuniversitaire Onderzoekschool  
(erkenning door de KNAW in 1992)



# L

# A

# C

# D

# R

## NEWSLETTER

Leiden

Amsterdam

Center for

Drug

Research

*Douwe Breimer (Leiden) and Henk Timmerman (Amsterdam):*

**“We are broadening our expertise to all pharmaceutical disciplines”**

“The research efforts of the groups in Leiden and Amsterdam are fully complementary. That’s why we are so eager to cooperate”, says dr. Douwe Breimer, professor of Pharmacology at the Center for Bio-Pharmaceutical Sciences (CBPS) of Leiden University. Breimer is director of the recently founded Leiden/Amsterdam Center for Drug Research (LACDR), a joint-venture of the CBPS and the Department of Medicinal Chemistry at the Free University in Amsterdam. From now on, the two institutes form one fully integrated research institute.

Dr. Henk Timmerman, co-director of LACDR and professor of Pharmacology at the Free University in Amsterdam, underlines the reasons for setting up this joint-venture: “Although the Center for Bio-Pharmaceutical Sciences in



**LACDR now officially Research School**

On September 27, the Royal Dutch Academy of Arts and Science officially announced the recognition of the Leiden/Amsterdam Center for Drug Research (LACDR) as one of the research schools in the Netherlands. Only a limited number of institutes is eligible for this status.

LACDR is a joint venture of the Center for Bio-Pharmaceutical Sciences of Leiden University, and the Department of Medicinal Chemistry of Amsterdam's Free University. In 1991, the universities decided to join forces to form one coherent drug research and Ph.D. training program. It combines the efforts of over 100 researchers (from full professors to research technicians) and 75 Ph.D. students. All aspects of modern-day drug research—from drug design and synthesis to evaluation of drug effects—are studied within the inter-university institute. Volunteer studies are carried out in the Center for Human Drug Research, established in 1987 by a joint venture of the Center for Bio-Pharmaceutical Sciences and Leiden University Hospital.

# Translational Drug Research and Development

Leiden/Amsterdam Center  
for Drug Research



Centre for Human  
Drug Research



Leiden University  
Medical Center





**1992** Founding **ULLA** with 4 partners: Uppsala, Leiden, London, Amsterdam

Mission: - collaboration in (post)graduate training in the pharmaceutical sciences in summer schools (Leiden 2024!)

- exchange of staff, students and expertise

- research collaboration

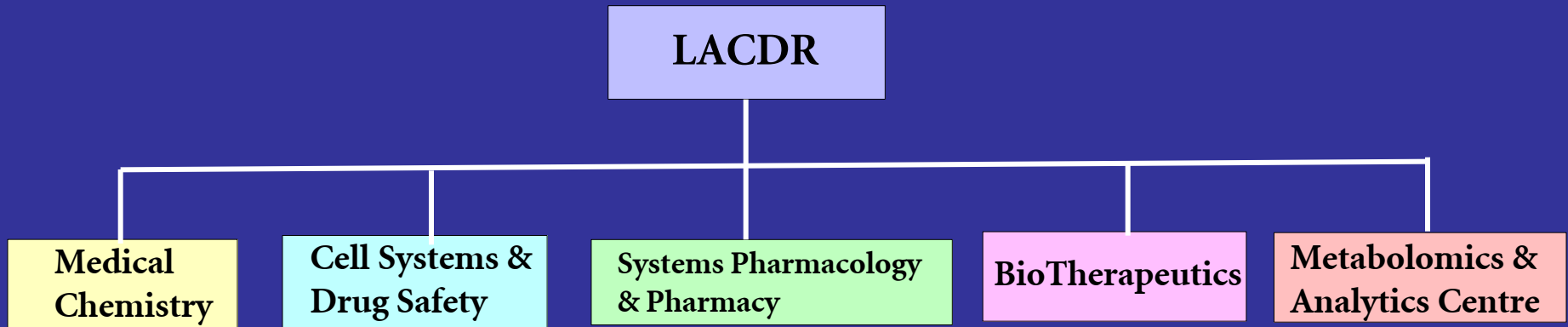
**2024** 10 partners: Uppsala, Leiden, London, Amsterdam, Copenhagen, Paris, Parma, Leuven, Helsinki, Geneva

# From single disciplines to multidisciplinary themes and teams

- Pharmacology: Mechanism and system based PK/PD in disease models
- Toxicology: Signaling networks in cytotoxicity and cancer progression
- Medicinal chemistry: Drug design and bioinformatics at G-Protein coupled receptors
- Biopharmaceutics: Therapeutic gene modulation in cardiovascular disease
- Drug Delivery Technology: targeting for circumventing the immune system
- Analytical Biosciences: System-based metabolomics



# LACDR Divisions 2024



13 full professors  
22 Ass/Assoc professors  
20 PI's  
approx. 150 PhD students  
Total budget 26 Mi Euros

Comparison:

**1984:** 7 Full professors  
14 Ass/Assoc professors  
28 PhD students  
Total budget: 2.3 Mi Euros

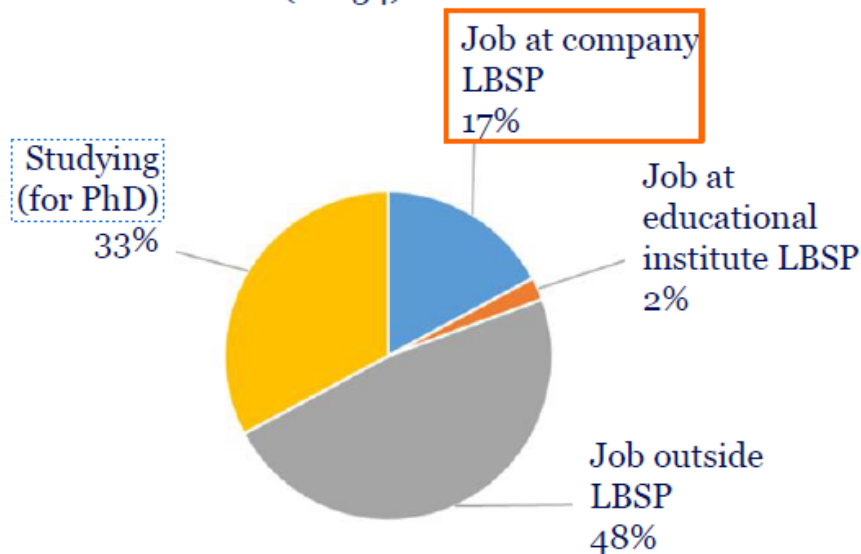
**2004:** 10 Full professors  
22 Ass/Assoc professor  
approx 90 PhD students  
Total budget: 13 Mi Euros

# Master BPS alumni at LBSP

- ▶ 17% of our alumni find a job at a LBSP company (Faculty-wide 7%)

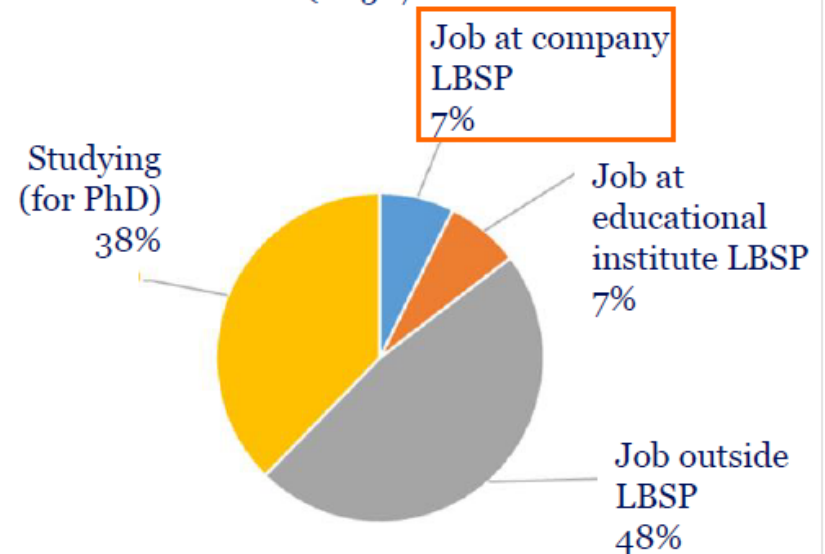
## BPS alumni

(n=134)



## Faculty of Science alumni

(n=587)



Source: alumni office Faculty of Science (graduates 2017-2021)

# 40 years BPS:

**a success story through excellence and  
continuous innovation in research and education**

Thanks to all the people who have worked and studied at  
BPS/LACDR

scientific and professional staff  
students (Aesculapius!)  
guided by the scientific directors

Gerard Mulder

Meindert Danhof

Piet (Hein) van der Graaf

Hubertus Irth

Miranda van Eck

# Motto's

*Sizzen is neat mar dwaen is in ding*

*Think global but act local*

*Le hazard ne favorise que les esprits préparés*

*(Louis Pasteur)*

*Most people see things as they are, and ask why.....*

*I dream things that never were, and ask why not....*

*(Robert Kennedy)*



*“From a Frisian Farm.....to.....”*

Universiteit Leiden. Universiteit om te ontdekken

*.....an Academic  
Christmas Tree....”*

