

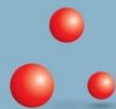
CENTRE FOR SYSTEMS CHEMISTRY SYMPOSIUM



university of
 groningen

faculty of mathematics
 and natural sciences

stratingh institute
 for chemistry



Research Center for
 Functional Molecular Systems
 Gravitation Program - The Netherlands



SEVENTH FRAMEWORK
 PROGRAMME

Speakers

Gonen Ashkenasy
Eric Buhler
Guido Clever
Ben Feringa
Michael Greaney
Thorri Gunnlaugsson
Andreas Herrmann
Ivan Huc
Jurriaan Huskens
Ludovic Jullien
Günter von Kiedrowski
Stefan Kubik
Ulrich Lüning
Douglas Philp
Addy Pross
Kenneth Raymond
Joost Reek
Rint Sijbesma

WWW.OTTO-LAB.COM/CSCS2013

11-12 SEPTEMBER 2013

**GRONINGEN
THE NETHERLANDS**



Welcome to the Centre for Systems Chemistry Symposium 2013!

The Centre of Systems Chemistry has been established in 2008 at the University of Groningen with an aim of creating a new frontier of research in molecular sciences with an interdisciplinary approach. Over the last five years, Systems Chemistry has connected researchers around the world working on various exciting areas such as self-assembly, origins of life, molecular machines, transport on the nanoscale, drug-discovery, smart materials etc. Therefore, we would like to strengthen our knowledge about these interesting areas with this two-day symposium.

This event has been organized in partnership with one national and two European programmes in the Systems Chemistry field: the Dutch Research Centre for Functional Molecular Systems (FMS Gravity Grant), and the Marie Curie Initial Training Networks Dynamol (Dynamic Molecular Materials) and ReAd (Replication and Adaptation in Molecular Systems). The final lecture of the symposium is the Backer lecture, a prestigious annual lectureship organized and financed by the Groningen-based Backer Foundation. We hope you will not only enjoy immersing yourself in the top-notch science, but also take the most out of rich evening offerings of the beautiful city of Groningen.

Registration will be open on Wednesday from 12.00 till 13.00 and on Thursday from 9.00 till 9.30 at the Symposium venue. The registration desk is also open during coffee and lunch breaks.

Wednesday Programme

Location: Zernikeborg - Donald Smitszaal (5431.0053)

13:00-13:15	Opening	Sijbren Otto (ReAd coordinator)
13:15-15:15	Session I	Chair: Jonathan Nitschke (University of Cambridge, Dynamol coordinator)
Eric Buhler	Dynamics of Supramolecular Systems	
Ivan Huc (Dynamol)	Molecular Engineering of Folded Nano-Architectures	
Joost Reek	Complexity in Catalysis: Ligand self-sorting, nonlinear effects, cofactor controlled catalysis and catalyst selection	
Rint Sijbesma	Tuning Crosslink Density in a Hydrogel by Supramolecular Self-Sorting	
15:15-15:45	Coffee Break	
15:45-17:45	Session II	Chair: Kay Severin (École Polytechnique Fédérale de Lausanne, ReAd & Dynamol)
Jurriaan Huskens	Covalent and Noncovalent Chemistry in a Reaction-Diffusion System: On out-of-equilibrium self-assembly and superselectivity	
Stefan Kubik (Dynamol)	Encapsulating Anions Between Cyclopeptide Rings	
Guido Clever	FMS Gravity Program lecture: Metal-Mediated Quadruplexes with and without DNA	
Andreas Herrmann	Assembly of Functional Systems Mediated by DNA	
17:45-20:00	Free time	
20:00-...	Dinner	Place: Ni-Hao (Gedempte Kattendiep 122)

Thursday Programme

Locations: Zernikeborg, Donald Smitszaal (5431.0053)

H.J. Backer Lecture: Bernoulliborg (room 5161.0151)

9:30-11:00	Session III	Chair: Aldrik Velders (University of Wageningen, Dynamol)
Ulrich Lüning (Dynamol)	Dendrimers with Orthogonal Connecting Motifs Using Supramolecular and Reversible-Covalent Bonds	
Michael Greaney	FMS Gravity Program lecture: Protein-Targeted Dynamic Covalent Chemistry	
Ben Feringa	Dynamic Molecular Systems	
11:00-11:30	Coffee Break	
11:30-13:00	Session IV	Chair: Rein Ulijn (University of Strathclyde, ReAd)
Thorri Gunnlaugsson	FMS Gravity Program lecture: Lanthanide Direct Synthesis of Self-Assembly Structures and Material	
Ludovic Jullien (ReAd)	Energy Patterning to Generate Out-of-Equilibrium Matter Organizations	
Günter von Kiedrowski (ReAd)	From Self-Replication to Self-Foolery: Why more experiments are more informative than more computation.	
13:00-14:00	Lunch Break	
14:00-15:30	Session V	Chair: Leonard Prins (University of Padova, ReAd)
Douglas Philp (ReAd)	In Through the Out Door – Probing the limits of instruction in synthetic replication networks	
Gonen Ashkenasy (ReAd)	Dynamic Replication Networks Driven by Thiodepsipeptides	
Addy Pross	On the Evolutionary Origin of Biological Function and Complexity	
15:30-16:00	Coffee Break + walk to Bernoulliborg (room 5161.0151)	
16:00-17:00	H.J. Backer Lecture	Chair: Jan Engberts (University of Groningen)
Kenneth Raymond	Confinement and Catalysis in Chiral, Self-Assembled, Nanoscale Flasks	
17:00-...	Drinks, free time & departure	

Travel information

Travelling from Amsterdam Schiphol Airport (AMS) to Groningen

If you arrive in the Netherlands at Schiphol, the Amsterdam International airport, the easiest way to travel to Groningen is to take the train. The underground train station is inside the airport, within walking distance of the luggage claim areas. The Dutch railway system is run by Nederlandse Spoorwegen (<http://www.ns.nl>). You will recognize it by its yellow and blue colors. Just follow the yellow illuminated signs that direct you 'To the trains'.

Train tickets

You must purchase a train ticket to Groningen before you board the train. Passengers travelling without a valid ticket will be fined. You can buy either a first-class ticket (€ 40 one-way) or a second-class ticket (€ 24.50 one-way). There are two ways of purchasing a ticket: the ticket counter and the yellow and blue ticket-vending machines that you will find in the luggage claim hall and by every entrance to the train terminal. You can purchase tickets from the machines only by using your credit card or a debit card with the Maestro logo. The vending machines do not accept American debit cards. There are no night trains to Groningen, so make sure your flight does not arrive too late. You can check the train schedule at <http://www.ns.nl>.

Travelling from the city centre to Zernike campus

The Symposium venues (Zernikeborg and Bernoulliborg for the final lecture) are located at the Zernike Campus (the northern campus of the University of Groningen). It can be reached by bus 11 or 15 from the Grote Markt (city centre) or from the bus-railway station. Tickets can be bought from the driver – make sure you have the exact fare ready (€2, valid one hour). In peak hours the bus leaves every 10 minutes and otherwise about every 20 minutes. The buses head in a general northerly direction towards Zernike which takes about 15 minutes. After the Shell station on your right, you pass under the ring road. The first stop in Zernike is at the white porters' lodge on your right. (The bus seldom stops there.) You alight at the second bus stop in the Zernike complex. To return to downtown Groningen take bus 11, back to the Central Railway Station via Grote Markt (= city centre) or bus 15, which takes a more direct route to the railway station.

Map of the buildings

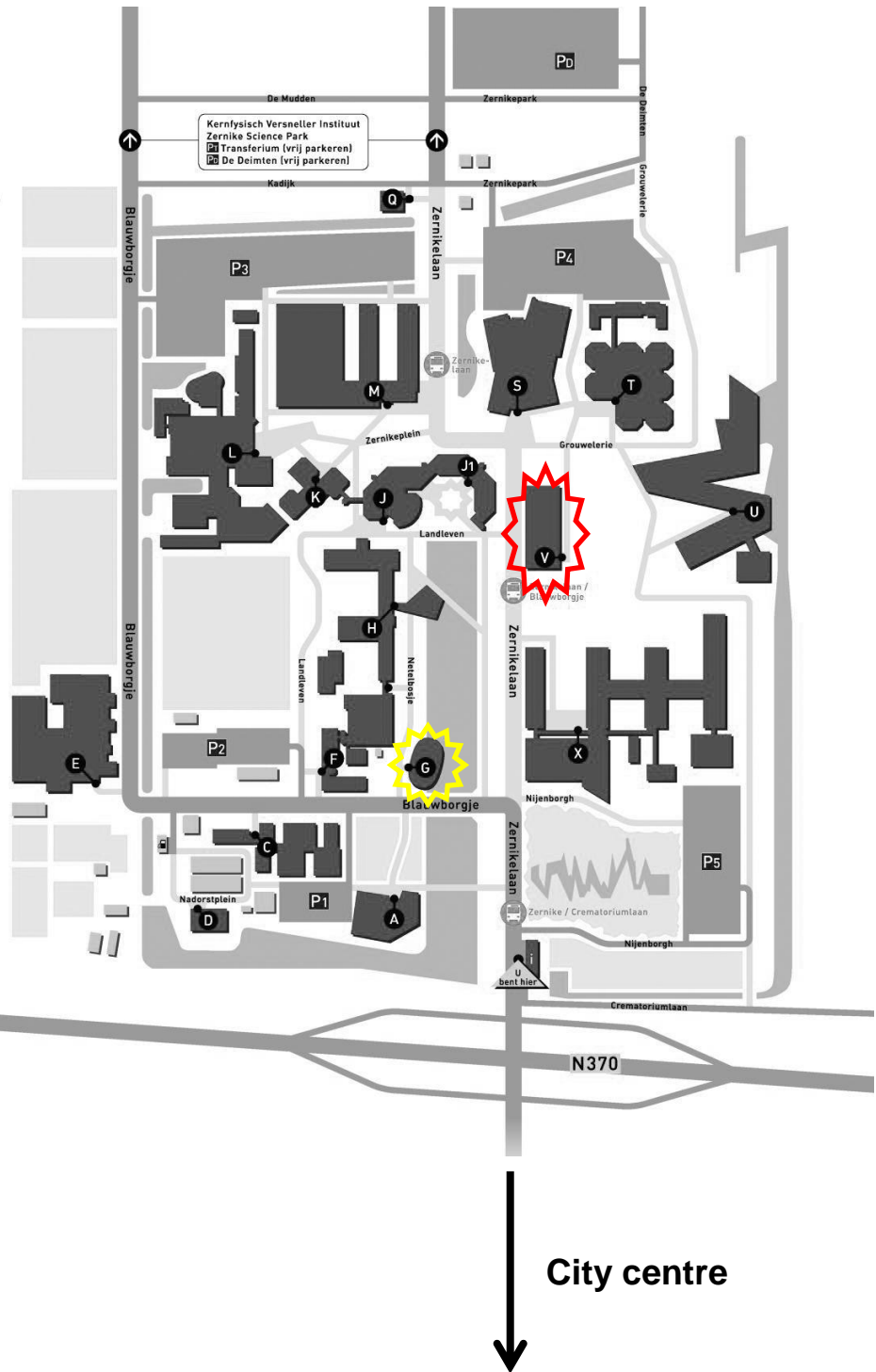
Zernike campus

Legend

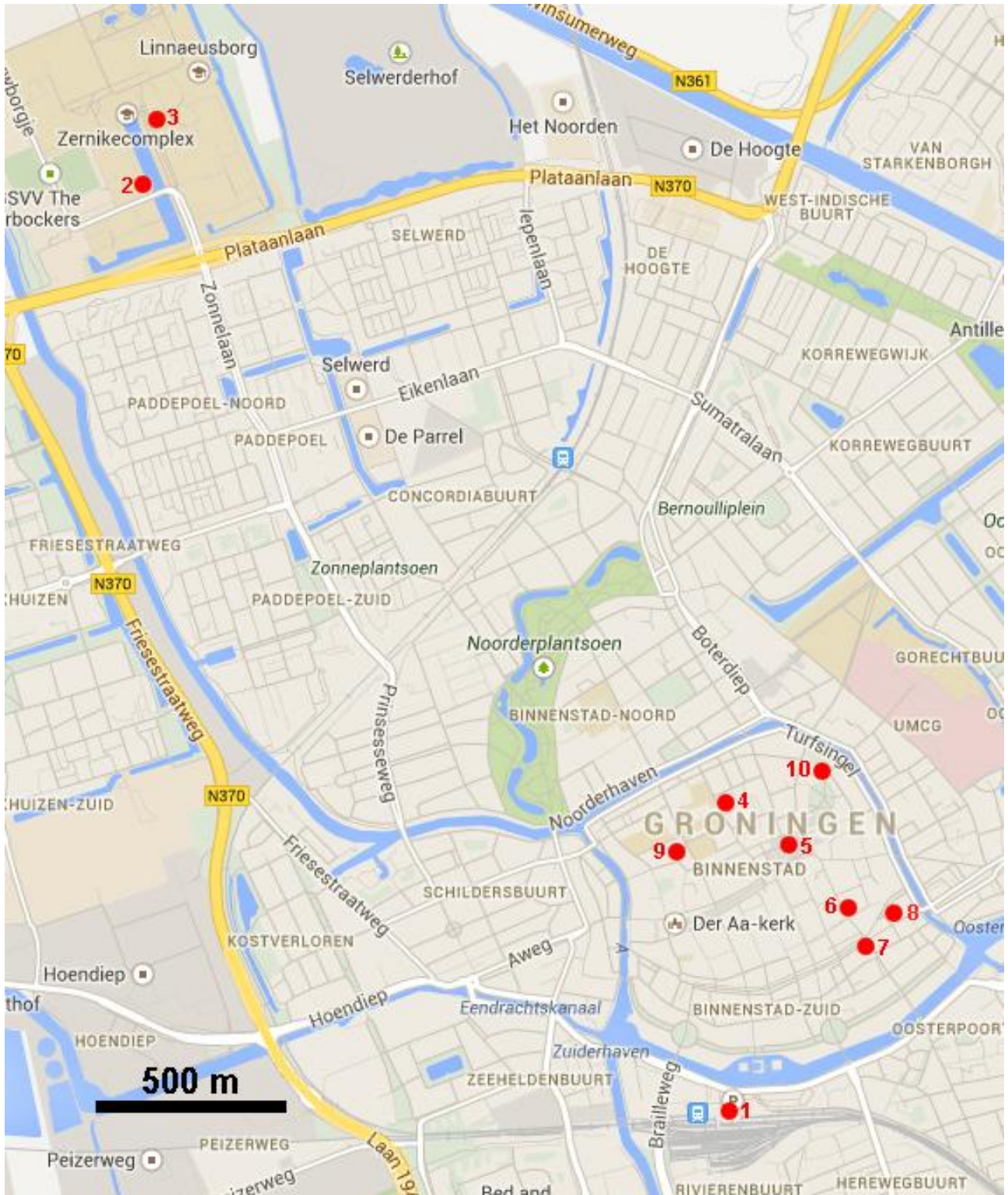
- Main entrance
- 🚌 Bus stop
- P1 Parking

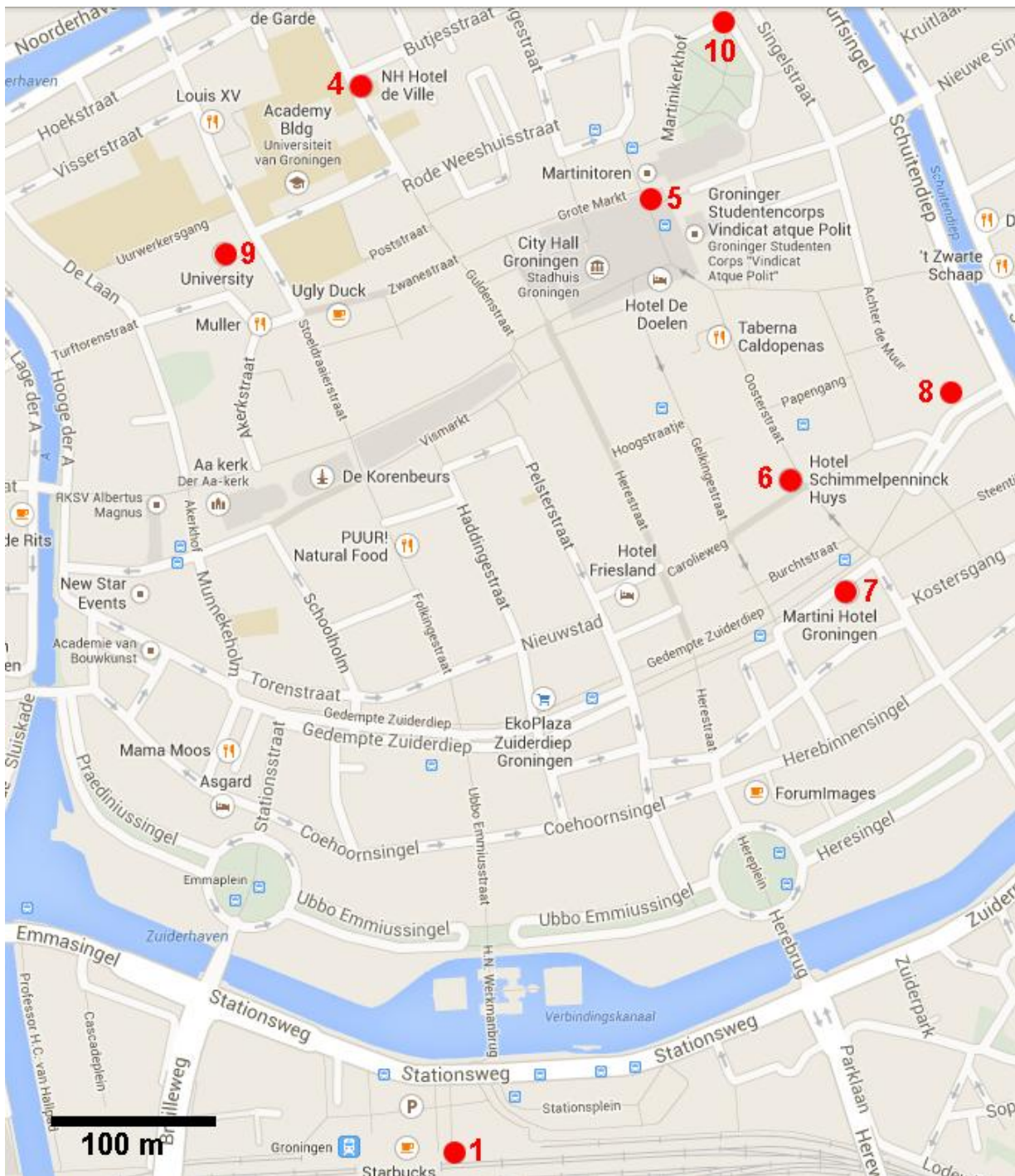
Index of the buildings

- ⓐ Zernikeborg
- Ⓥ Bernoulliborg



Map of Groningen





1. Central Station
2. Zernikeborg
3. Bernoulliborg
4. NH Hotel De Ville, Oude Boteringestraat 43-45
5. Grote Markt (city centre)
6. Hotel Schimmelpennyck Huis, Oosterstraat 53
7. Martini Hotel, Gedempte Zuiderdiep 8
8. Ni-Hao restaurant, Gedempte Kattendiep 122 (conference dinner)
9. University Hotel, Kleine Kromme Elleboog 7
10. Hotel Prinsenhof, Martinikerkhof 23

Partners

Dynamol ITN



ReAd ITN



Marie Curie Initial Training Network

ReAd



Replication and Adaptation in Molecular Networks

Backer Foundation
FMS Gravity Program

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