

REPORT DOCUMENTATION PAGE			Form Approved OMB NO. 0704-0188		
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1. REPORT DATE (DD-MM-YYYY) 15-12-2016		2. REPORT TYPE Final Report		3. DATES COVERED (From - To) 11-Mar-2016 - 10-Sep-2016	
4. TITLE AND SUBTITLE Final Report: 2016 Biointerface Science Gordon Research Conference and Gordon Research Seminar ARO Topical Area: Biochemistry Program, Life Sciences Division			5a. CONTRACT NUMBER W911NF-16-1-0052		
			5b. GRANT NUMBER		
			5c. PROGRAM ELEMENT NUMBER 611102		
6. AUTHORS Atul Parikh, Hudson Pace			5d. PROJECT NUMBER		
			5e. TASK NUMBER		
			5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAMES AND ADDRESSES Gordon Research Conferences, Inc. 512 Liberty Lane West Kingston, RI 02892 -1502			8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS (ES) U.S. Army Research Office P.O. Box 12211 Research Triangle Park, NC 27709-2211			10. SPONSOR/MONITOR'S ACRONYM(S) ARO		
			11. SPONSOR/MONITOR'S REPORT NUMBER(S) 69072-LS-CF.1		
12. DISTRIBUTION AVAILABILITY STATEMENT Approved for Public Release; Distribution Unlimited					
13. SUPPLEMENTARY NOTES The views, opinions and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other documentation.					
14. ABSTRACT The 2016 Gordon Research Conference on Biointerface Science sought to explore this convergence by offering a broad scientific program, spearheaded by distinguished speakers and discussion leaders, to open a cross-disciplinary conversation. Sessions included (1) a keynote session on active, dynamic, and adaptive biological interfaces; (2) smart and responsive biointerfaces, including biosensors; (3) physics and chemistry interfaces; (4) advances in characterization of interfaces; (5) localization of functions at cellular interfaces, including signaling; (6) roles of interfaces in cellular colonies, including those of ECM and EPS; and (7) importance of interfaces in the					
15. SUBJECT TERMS Final Report					
16. SECURITY CLASSIFICATION OF:		17. LIMITATION OF ABSTRACT		15. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT UU	b. ABSTRACT UU	c. THIS PAGE UU	UU		Atul Parikh
				19b. TELEPHONE NUMBER 530-304-7523	

Report Title

Final Report: 2016 Biointerface Science Gordon Research Conference and Gordon Research Seminar ARO Topical Area: Biochemistry Program, Life Sciences Division

ABSTRACT

The 2016 Gordon Research Conference on Biointerface Science sought to explore this convergence by offering a broad scientific program, spearheaded by distinguished speakers and discussion leaders, to open a cross-disciplinary conversation. Sessions included (1) a keynote session on active, dynamic, and adaptive biological interfaces; (2) smart and responsive biointerfaces, including biosensors; (3) physics and chemistry interfaces; (4) advances in characterization of interfaces; (5) localization of functions at cellular interfaces, including signaling; (6) roles of interfaces in cellular colonies, including those of ECM and EPS; and (7) importance of interfaces in the origins of life and design of synthetic protocells. We also had sessions for Late-Breaking Topics (selected from submissions) and a concluding Perspective session. The cross-disciplinary interchange at the GRC helped to identify common interfacial issues, model systems, characterization tools, and develop a shared language. Following a modified GRC format in the spirit of the "Fraunfelder Rule", this conference promoted active discussions, offered social time, and facilitated free and open scientific communication across experience levels toward building a vibrant and cohesive Biointerface Science community.

Enter List of papers submitted or published that acknowledge ARO support from the start of the project to the date of this printing. List the papers, including journal references, in the following categories:

(a) Papers published in peer-reviewed journals (N/A for none)

<u>Received</u>	<u>Paper</u>
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TOTAL:

Number of Papers published in peer-reviewed journals:

(b) Papers published in non-peer-reviewed journals (N/A for none)

<u>Received</u>	<u>Paper</u>
-----------------	--------------

TOTAL:

Number of Papers published in non peer-reviewed journals:

(c) Presentations

Number of Presentations: 0.00

Non Peer-Reviewed Conference Proceeding publications (other than abstracts):

Received Paper

TOTAL:

Number of Non Peer-Reviewed Conference Proceeding publications (other than abstracts):

Peer-Reviewed Conference Proceeding publications (other than abstracts):

Received Paper

TOTAL:

Number of Peer-Reviewed Conference Proceeding publications (other than abstracts):

(d) Manuscripts

Received Paper

TOTAL:

Number of Manuscripts:

Books

Received Book

TOTAL:

Received

Book Chapter

TOTAL:

Patents Submitted

Patents Awarded

Awards

Graduate Students

<u>NAME</u>	<u>PERCENT SUPPORTED</u>
FTE Equivalent:	
Total Number:	

Names of Post Doctorates

<u>NAME</u>	<u>PERCENT SUPPORTED</u>
FTE Equivalent:	
Total Number:	

Names of Faculty Supported

<u>NAME</u>	<u>PERCENT SUPPORTED</u>
FTE Equivalent:	
Total Number:	

Names of Under Graduate students supported

<u>NAME</u>	<u>PERCENT SUPPORTED</u>
FTE Equivalent:	
Total Number:	

Student Metrics

This section only applies to graduating undergraduates supported by this agreement in this reporting period

The number of undergraduates funded by this agreement who graduated during this period: 0.00

The number of undergraduates funded by this agreement who graduated during this period with a degree in science, mathematics, engineering, or technology fields:..... 0.00

The number of undergraduates funded by your agreement who graduated during this period and will continue to pursue a graduate or Ph.D. degree in science, mathematics, engineering, or technology fields:..... 0.00

Number of graduating undergraduates who achieved a 3.5 GPA to 4.0 (4.0 max scale):..... 0.00

Number of graduating undergraduates funded by a DoD funded Center of Excellence grant for Education, Research and Engineering:..... 0.00

The number of undergraduates funded by your agreement who graduated during this period and intend to work for the Department of Defense 0.00

The number of undergraduates funded by your agreement who graduated during this period and will receive scholarships or fellowships for further studies in science, mathematics, engineering or technology fields:..... 0.00

Names of Personnel receiving masters degrees

<u>NAME</u>
Total Number:

Names of personnel receiving PHDs

<u>NAME</u>
Total Number:

Names of other research staff

<u>NAME</u>	<u>PERCENT SUPPORTED</u>
FTE Equivalent:	
Total Number:	

Sub Contractors (DD882)

Inventions (DD882)

Scientific Progress

Technology Transfer



GORDON RESEARCH CONFERENCES

FINAL PROGRESS REPORT

Army Research Office
Biointerface Science GRC/GRS

Grant Number W911NF-16-1-0052

June 11-17, 2016

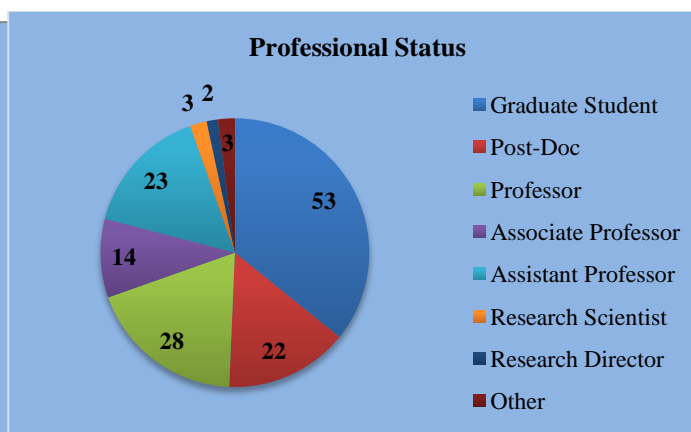
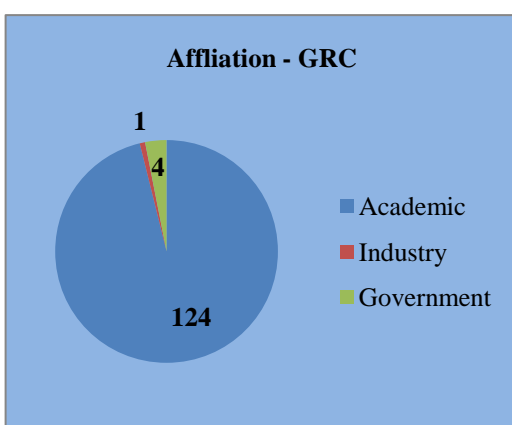
Operational Summary

The Gordon Research Conference (GRC) and Gordon Research Seminar (GRS) on Biointerface Science were held at the Les Diablerets Conference Center in Les Diablerets, Switzerland from June 11-17, 2016. The meeting covered a variety of scientific topics and the content presented was highly rated by participants.



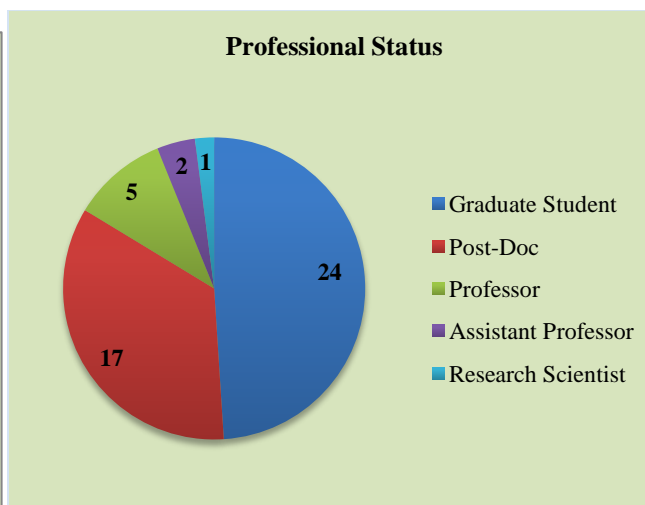
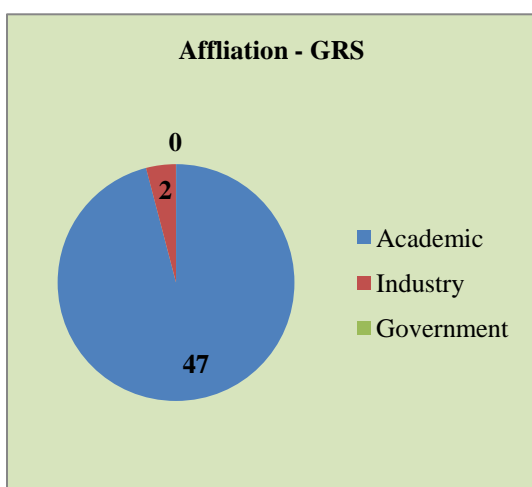
Conference Participants

The Conference was well-attended with 129 participants. Scientists from academia represented 96% of the participants while attendees from government accounted for 3% and those from industry totaled 1%. The meeting also attracted a strong mix of young investigators and senior scientists. Students and post-docs accounted for 43% of all attendees. Approximately 30% of the participants at the 2016 meeting were women.



Seminar Participants

The Seminar was well-attended with 49 participants. Scientists from academia represented 97% of the participants while attendees from industry accounted for 3%. Students and post docs combined accounted for 84% of all attendees. Approximately 33% of the participants at the 2016 seminar were women.



Conference Program

The 2016 GRC on Biointerface Science brought together scientists and engineers, including students, post-docs, young investigators, and thought-leaders in the rapidly consolidating field of natural and engineered biological interfaces. Biointerfaces – encompassing natural interfaces between clusters and assemblies of biomolecules and water, between cells and extra-cellular matrix, between populations of cells and their surroundings, and those between the biotic and the abiotic in engineered settings – are pervasive across a host of fields spanning materials science to medicine, sensing to synthetic biology, plants to pathogenesis, and oncology to the origins of life. Appearing across a range of length- and time-scales as emergent mesoscale features, biointerfaces offer a convergent theme across disciplinary boundaries affording an opportunity to dissect fundamental physical-chemical mechanisms at interfaces, unravel functional significance of interfaces, identify practical challenges, and explore new scientific and technological opportunities.

The 2016 Gordon Research Conference on Biointerface Science sought to explore this convergence by offering a broad scientific program, spearheaded by distinguished speakers and discussion leaders, to open a cross-disciplinary conversation. Sessions included (1) a keynote session on active, dynamic, and adaptive biological interfaces; (2) smart and responsive biointerfaces, including biosensors; (3) physics and chemistry interfaces; (4) advances in characterization of interfaces; (5) localization of functions at cellular interfaces, including signaling; (6) roles of interfaces in cellular colonies, including those of ECM and EPS; and (7) importance of interfaces in the origins of life and design of synthetic protocells. We also had sessions for Late-Breaking Topics (selected from submissions) and a concluding Perspective session. The cross-disciplinary interchange at the GRC helped to identify common interfacial issues, model systems, characterization tools, and develop a shared language. Following a modified GRC format in the spirit of the "Fraunfelder Rule", this conference promoted active discussions, offered social time, and facilitated free and open scientific communication across experience levels toward building a vibrant and cohesive Biointerface Science community.

The associated Gordon Research Seminar (GRS) on Biointerface Science – in contiguity with the GRC – provided a venue with sufficient intimacy for junior investigators and young scientists to readily establish informal networks for long-term collaborations and a life-time of scientific citizenship. This seminar gathered international researchers from engineering, chemistry, biology, and physics in a synergistic effort to overcome the interdisciplinary barriers often encountered in Biointerface Science. Biological interfaces exist in many varieties: interfacial and membrane associated proteins, natural and artificial membrane structures, bioelectronics, biofilms, nanomedicine, biomedical device development, cell-culturing scaffolds, etc. It is through interdisciplinary collaboration and discussion that we can find the answers to our own personal research barriers.

Related Meeting

Conference Budget

Funding provided by the Army Research Office supported partial registration and/or travel for 2 postdocs, 1 graduate student, 1 professor, 4 assistant professors and 1 research scientist at the GRC and partial registration for 2 graduate students, 6 postdocs, and 1 assistant professor at the GRS.

Conference Feedback

Participants had an opportunity to provide feedback at the end of the Conference. The feedback collected from the meeting was extremely positive. Evaluations included numerous positive remarks regarding the intellectually stimulating talks, selection of topics and the poster sessions. Evaluations from the GRS included positive comments regarding the poster presentations, career panel and connecting with people from a wide variety of disciplines.

GRC would like to thank the Army Research Office for its continued support of the meetings. The contributions received from the Army Research Office have been critical to the success of the conferences and are having a measurable impact in advancing the frontiers of science worldwide.

Dr. Atul Parikh, GRC Chair
University of California, Davis

Dr. Hudson Pace, GRS Chair
Chalmers University of Technology

Dr. Nancy Ryan Gray
President and Chief Executive Officer
Gordon Research Conferences

Biointerface Science

Gordon Research Conference

Active, Adaptive, and Responsive Biointerfaces

June 12-17, 2016

Les Diablerets Conference Center

Les Diablerets, Switzerland

Chair: [Atul N. Parikh](#)

Vice Chair: [Hagan P. Bayley](#)

Contributors



The conference is also grateful for grant support from the U.S. Office of Naval Research Global (ONR Global) Collaborative Science Program.

Meeting Program

Sunday

4:00 pm - 8:00 pm

Arrival and Check-in

6:00 pm

Dinner

7:30 pm - 7:40 pm

Welcome / Introductory Comments by GRC Site Staff

7:40 pm - 9:30 pm

Keynote Session: Active, Adaptive, and Dynamic Biointerfaces

Discussion Leader: **C. Jeffrey Brinker** (Sandia National Laboratories / University of New Mexico, USA)

7:40 pm - 7:50 pm Introduction by Discussion Leader

7:50 pm - 8:25 pm **Stephen Mann** (University of Bristol, United Kingdom)
"Proto-Biological Interfaces and the Advent of Synthetic Cellularity"

8:25 pm - 8:40 pm Discussion

8:40 pm - 9:15 pm **Petra Schwille** (Max Planck Institute of Biochemistry, Germany)
"How to Controllably Switch Protein Patterns on Membranes"

9:15 pm - 9:30 pm Discussion

Monday

7:30 am - 8:30 am Breakfast

9:00 am - 12:30 pm **Smart and Responsive Biointerfaces and Biosensors**
Discussion Leader: **Bengt Kasemo** (Chalmers University of Technology, Sweden)

9:00 am - 9:10 am Introduction by Discussion Leader

9:10 am - 9:50 am **Daniel Fletcher** (University of California, Berkeley, USA)
"Disease Diagnosis and Discovery with Mobile Phones"

9:50 am - 10:10 am Discussion

10:10 am - 10:40 am Coffee Break

10:40 am - 11:20 am **Dimitrios Stamou** (University of Copenhagen, Denmark)
"High Sensitivity, High Throughput, Recording of Single Transporter Activity"

11:20 am - 11:35 am Discussion

11:35 am - 12:15 pm **Marta Bally** (Chalmers University of Technology, Sweden)
"Cell Surface Mimics to Probe Virus-Membrane Interactions"

12:15 pm - 12:30 pm Discussion

12:30 pm Group Photo / Lunch

1:30 pm - 4:30 pm Free Time

4:30 pm - 6:00 pm Poster Session

6:00 pm - 8:00 pm **Chemistry of Interfaces**
Discussion Leader: **Amitabha Chattopadhyay** (Center for Cellular and Molecular Biology, India)

6:00 pm - 6:10 pm Introduction by Discussion Leader

6:10 pm - 6:50 pm **Samuel Stupp** (Northwestern University, USA)
"Interfaces Between Cells and Functional Supramolecular Systems"

6:50 pm - 7:05 pm	Discussion
7:05 pm - 7:45 pm	Paul Cremer (Pennsylvania State University, USA) "The Metallomembrane: Investigating the Interactions of Transition Metal Ions with Lipid Bilayers"
7:45 pm - 8:00 pm	Discussion
8:00 pm	Dinner

Tuesday

7:30 am - 8:30 am	Breakfast
9:00 am - 12:30 pm	Characterization of Interfaces: New Advances Discussion Leader: Milan Mrksich (Northwestern University, USA)
9:00 am - 9:10 am	Introduction by Discussion Leader
9:10 am - 9:50 am	Luke Lee (National University of Singapore, Singapore) "Bio-Inspired Optical Antennas"
9:50 am - 10:10 am	Discussion
10:10 am - 10:40 am	Coffee Break
10:40 am - 11:20 am	Daniel Mueller (ETH Zurich, Switzerland) "Single Molecule Atomic Force Microscopy and Force Spectroscopy for Quantifying Biological Processes"
11:20 am - 11:35 am	Discussion
11:35 am - 12:15 pm	Sara Sandin (Nanyang Technological University, Singapore) "Phase-Plate Cryo-EM Analysis of Chromatin and DNA at Near-Atomic Resolution"
12:15 pm - 12:30 pm	Discussion
12:30 pm	Lunch
1:30 pm - 4:30 pm	Free Time
4:30 pm - 6:00 pm	<u>Poster Session</u>
6:00 pm - 8:00 pm	Origins of Life and Synthetic Cell Discussion Leader: Kathryn Whitehead (Carnegie Mellon University, USA)
6:00 pm - 6:10 pm	Introduction by Discussion Leader
6:10 pm - 6:50 pm	Dek Woolfson (University of Bristol, United Kingdom) "Designing Peptide-Based Assemblies to Interface with Membranes and Cells"
6:50 pm - 7:05 pm	Discussion

7:05 pm - 7:45 pm **Lee Cronin** (University of Glasgow, United Kingdom)
"Exploring the Emergence Complexity at the 'Cell' Level: From Morphogenesis to Darwinian Evolution"

7:45 pm - 8:00 pm Discussion

8:00 pm Dinner

Wednesday

7:30 am - 8:30 am Breakfast

9:00 am - 12:30 pm **Cellular and Intercellular Interfaces**

Discussion Leader: **Jay Groves** (University of California, Berkeley, USA)

9:00 am - 9:10 am Introduction by Discussion Leader

9:10 am - 9:50 am **Madan Rao** (National Center for Biological Sciences, India)
"Mechanisms of Membrane Organization and Endocytosis"

9:50 am - 10:10 am Discussion

10:10 am - 10:40 am Coffee Break

10:40 am - 11:20 am **Viola Vogel** (ETH Zurich, Switzerland)
"Mechanical Reciprocity Between Engineered Environments and the Cell Nucleus"

11:20 am - 11:35 am Discussion

11:35 am - 12:15 pm **Jeanne Stachowiak** (The University of Texas at Austin, USA)
"Reverse Engineering Biological Membranes – From Physical Mechanisms to Therapeutic Strategies"

12:15 pm - 12:30 pm Discussion

12:30 pm Lunch

1:30 pm - 4:30 pm Free Time

4:30 pm - 6:00 pm Poster Session

6:00 pm - 8:00 pm **Interfaces in Cellular Colonies and Microbial Communities**

Discussion Leader: **Hagan Bayley** (University of Oxford, United Kingdom)

6:00 pm - 6:10 pm Introduction by Discussion Leader

6:10 pm - 6:50 pm **Staffan Kjelleberg** (Singapore Centre for Environmental Life Sciences Engineering, Singapore)
"Ecomechanics of the Extracellular Interface Resolves Key Biofilm Development Stages"

6:50 pm - 7:05 pm Discussion

7:05 pm - 7:45 pm **Gerard Wong** (University of California, Los Angeles, USA)
"Surface Sensing During the First 20 Generations of Bacterial Life on a Surface"

7:45 pm - 8:00 pm Discussion

8:00 pm Dinner

Thursday

7:30 am - 8:30 am Breakfast

8:30 am - 9:00 am Business Meeting

Nominations for the Next Vice Chair; Fill in Conference Evaluation Forms; Discuss Future Site and Scheduling Preferences; Election of the Next Vice Chair

9:00 am - 12:30 pm

Late-Breaking Topics

Discussion Leaders: **Benjamin Yellen** (Duke University, USA) and **Padmini Rangamani** (University of California, San Diego, USA)

9:00 am - 9:20 am

Anders Gunnarsson (AstraZeneca R&D, Sweden)

"Watching Single Molecules in Action – Turning an Optical Microscope into a Single Molecule Biosensor for Drug Discovery Applications"

9:20 am - 9:30 am

Discussion

9:30 am - 9:50 am

Sierin Lim (Nanyang Technological University, Singapore)

"Modulating Protein-Protein Interaction for Tunable Assembly and Release of Molecular Cargo"

9:50 am - 10:00 am

Discussion

10:00 am - 10:20 am

Erkin Seker (University of California, Davis, USA)

"Nanoporous Gold as a Multifunctional Biointerface"

10:20 am - 10:30 am

Discussion

10:30 am - 11:00 am

Coffee Break

11:00 am - 11:20 am

Ximin He (Arizona State University, USA)

"Stimuli-Responsive Surfaces for Cell Adhesion and Separation"

11:20 am - 11:30 am

Discussion

11:30 am - 11:50 am

Darius Koester (National Centre for Biological Sciences, India)

"Acto-Myosin Dynamics Drive Local Membrane Component Organization in an *In Vitro* Active Composite Layer"

11:50 am - 12:00 pm

Discussion

12:00 pm - 12:20 pm

Cheemeng Tan (University of California, Davis, USA)

"Programmable Communication Between Artificial and Natural Cells"

12:20 pm - 12:30 pm Discussion

12:30 pm Lunch

1:30 pm - 4:30 pm Free Time

4:30 pm - 6:00 pm Poster Session

6:00 pm - 8:00 pm

Perspectives: What Constitutes Biointerface Science

Discussion Leaders: **Atul Parikh** (Nanyang Technological University, Singapore / University of California, Davis, USA) and **Bo Liedberg** (Nanyang Technological University, Singapore)

6:00 pm - 6:15 pm Introduction by Discussion Leader

6:15 pm - 6:35 pm **Hagan Bayley** (University of Oxford, United Kingdom)

"What Constitutes Biointerfaces?"

6:35 pm - 6:50 pm Discussion

6:50 pm - 7:10 pm **C. Jeffrey Brinker** (Sandia National Laboratories / University of New Mexico, USA)

"Protocells: From Drug Delivery to Cell-Mimics"

7:10 pm - 7:25 pm Discussion

7:25 pm - 7:45 pm General Discussion

7:45 pm - 8:00 pm Closing Remarks

8:00 pm Dinner

Friday

7:30 am - 8:30 am Breakfast

9:00 am Departure

Biointerface Science (GRS)

Gordon Research Seminar

Building Interdisciplinary Bridges Towards Expanding the Frontiers of Biological Science

June 11-12, 2016

Les Diablerets Conference Center

Les Diablerets, Switzerland

Chairs: [Hudson Pace](#) & [Elisa D'Arcangelo](#)

Contributors



Final Meeting Program

Saturday

1:30 pm - 4:30 pm Arrival and Check-in

3:00 pm - 3:15 pm Introductory Comments by GRC Site Staff / Welcome by the GRS Conference Chair

3:15 pm - 4:00 pm **Keynote Session: Biointerface Science and Applications: Past, Present, and Future**

As one of the forefathers of Biointerface Science, Bengt Kasemo is the perfect choice to describe how this field emerged, how it is still evolving, and how to identify newly emerging interdisciplinary fields. He has also had his share of both successes and failures with spin-off companies; one such company is Q-Sense, which produces scientific instruments that can be found in research labs around the world. Despite all of his successes both in business and in academia he remains humble and enjoys working with young scientists.

Discussion Leader: **Hudson Pace** (Chalmers University of Technology, Sweden)

3:15 pm - 3:35 pm **Bengt Kasemo** (Chalmers University of Technology, Sweden)

"Biointerface Science and Applications: Past, Present, and Future"

3:35 pm - 4:00 pm Discussion

4:00 pm - 5:30 pm Poster Session

5:30 pm - 7:30 pm **Biological Interactions on Cell Surface Mimics / Mentorship Component: Career Panel Discussion**

Mentorship Component: We strive for a unique experience for the GRS attendees by

assembling a group of individuals that are within the first 5 years after their PhD and have gone on to find success in either academia, industry, or through entrepreneurship. The mentorship panel in the latter half of this session is meant to target current PhD students and early post-docs that are perhaps struggling with the decision of what to do next in their career and need inspiration about the options that are available to them. Unlike many other career panels, this one will utilize members that have had to answer such questions for themselves very recently and who are of similar age to the audience.

Discussion Leader: **Irena Kiesel** (Institut Laue-Langevin, France)

5:30 pm - 5:50 pm **Daniel Cohen** (Stanford University, USA)

"Mimicking the Tissue-Tissue Interface with a 'Cell-Like' Biomaterial"

5:50 pm - 6:00 pm Discussion

6:00 pm - 6:20 pm **Nadia Peerboom** (Chalmers University of Technology, Sweden)

"Surface-Based Sensing to Probe Herpes-Glycosaminoglycan Interactions with Single Particle Sensitivity"

6:20 pm - 6:30 pm Discussion

6:30 pm - 7:30 pm Panel Discussion

"Making the Transition: What Is Next After My PhD/Post-Doc?"

- **Anders Gunnarsson** (AstraZeneca R&D, Sweden)
- **Vincent Milleret** (Ectica Technologies, Switzerland)
- **Kaori Sugihara** (University of Geneva, Switzerland)

8:00 pm Dinner

Sunday

7:30 am - 8:30 am Breakfast

9:00 am - 11:00 am **Nanoparticle-Membrane Interactions / Dynamic Membrane Architectures**

Discussion Leaders: **Anders Gunnarsson** (AstraZeneca R&D, Sweden) and **Yuval Elani** (Imperial College London, United Kingdom)

9:00 am - 9:20 am **Anders Lundgren** (University of Natural Resources and Life Sciences, Vienna (BOKU), Austria)

"Non-Specific DLVO-Type Interaction Explains Size-Dependent Specific Binding of Membrane-Targeted Nanoparticles"

9:20 am - 9:30 am Discussion

9:30 am - 9:50 am **Michael Mitchell** (Massachusetts Institute of Technology, USA)

"Polymeric Mechanical Amplifiers of Tumor Apoptosis"

9:50 am - 10:00 am Discussion

- 10:00 am - 10:20 am **Morgan Chabanon** (University of California, San Diego, USA)
"Non-Equilibrium Thermodynamics of Lipid Vesicle Under Osmotic Stress"
- 10:20 am - 10:30 am Discussion
- 10:30 am - 10:50 am **Alexander Mason** (University of New South Wales, Australia)
"Rational Design of Polymers to Control Membrane Protein Orientation in Vesicles"
- 10:50 am - 11:00 am Discussion
- 11:00 am - 12:30 pm Poster Session
Coffee will be served in the poster area from 11:00 am - 11:30 am
- 12:30 pm Lunch
- 1:30 pm - 2:30 pm **Cells at Conductive-Substrate Interfaces**
Discussion Leader: **Tagbo Niepa** (University of Pennsylvania, USA)
- 1:30 pm - 1:50 pm **Catalina Vallejo Giraldo** (CÚRAM / National University of Ireland Galway, Ireland)
"PEDOT Polymeric Coatings for Neuroelectrodes: Topographical and Biological Strategies"
- 1:50 pm - 2:00 pm Discussion
- 2:00 pm - 2:20 pm **Tobias Wenzel** (University of Cambridge, United Kingdom)
"Transparent Electrode Scaffolds for Light Stimulated Electrochemical Measurements on Biofilms"
- 2:20 pm - 2:30 pm Discussion
- 2:30 pm - 3:00 pm Evaluation Period
Fill in GRS Evaluation Forms
- 3:00 pm Seminar Concludes

Biointerface Science GRC – Registration List

Aguiar, Mibel	Monash University	Poster Presenter	Registered
Alameddine, Ranime	Centre Interdisciplinaire de Nanoscience a Marseille	Poster Presenter	Registered
Anselme, Karine	CNRS	Poster Presenter	Registered
Armanious, Antonius	Chalmers University of Technology	Poster Presenter	Registered
Bally, Marta	Chalmers University of Technology	Speaker	Registered
Baranova, Natalia	IST Austria	Poster Presenter	Registered
Barlow, Nathan E	Imperial College London	Attendee	Registered
Bayley, Hagan P	University of Oxford	Vice Chair	Registered
Beaudoin, Monique	US Office of Naval Research (ONR) Global	Attendee	Registered
Birch, William R	Institute of Materials Research and Engineering	Poster Presenter	Registered
Booth, Richard	University of Bristol	Poster Presenter	Registered
Brennan, John D	Biointerfaces Institute	Poster Presenter	Registered
Brinker, C. Jeffrey	Sandia National Laboratories / University of New Mexico	Speaker	Registered
Broaders, Kyle E	Mount Holyoke College	Poster Presenter	Registered
Capretta, Alfredo	Biointerfaces Institute, McMaster University	Poster Presenter	Registered
Carter, Nathan A	Virginia Tech	Poster Presenter	Registered
Chabanon, Morgan	University of California, San Diego	Poster Presenter	Registered
Chattopadhyay, Amitabha	Center for Cellular and Molecular Biology	Discussion Leader	Registered
Chilkoti, Ashutosh	Duke University	Attendee	Registered
Choi, Siyoung Q.	Korea Advanced Institute of Science and Technology	Poster Presenter	Registered
Choi, Seong Soo	SunMoon University	Poster Presenter	Registered
Claridge, Shelley	Purdue University	Poster Presenter	Registered
Cohen, Daniel J	Stanford University	Poster Presenter	Registered
Cohen Simonsen, Adam	University of Southern Denmark	Poster Presenter	Registered
Cremer, Paul S	Pennsylvania State University	Speaker	Registered
Cronin, Lee	University of Glasgow	Speaker	Registered
D'Arcangelo, Elisa	University of Toronto	Poster Presenter	Registered
Dahlin, Andreas B	Chalmers University of Technology	Poster Presenter	Registered
Dehli, Jeppe	Aarhus University	Poster Presenter	Registered
Di Iorio, Daniele	University of Twente	Poster Presenter	Registered
Diaz, Carolina	Max Planck Institute for Medical Research	Poster Presenter	Registered
Ederth, Thomas	Linköping University	Poster Presenter	Registered
Elani, Yuval	Imperial College London	Poster Presenter	Registered
Emilsson, Gustav	Chalmers University of Technology	Poster Presenter	Registered
Fletcher, Daniel A	University of California, Berkeley	Speaker	Registered
Gopal, Sahana	Imperial College London	Poster Presenter	Registered
Groves, Jay	University of California, Berkeley	Discussion Leader	Registered
Guan, Zhibin N	University of California, Irvine	Poster Presenter	Registered
Gunnarsson, Anders M	AstraZeneca R&D	Speaker	Registered
Gustafsson, Hanna	Chalmers University of Technology	Poster Presenter	Registered

Hahl, Hendrik	Saarland University	Poster Presenter	Registered
Hajiraissi, Roozbeh	University Paderborn	Poster Presenter	Registered
Han, Xiaojun	Harbin Institute of Technology	Poster Presenter	Registered
Hay, Jake J	University of Glasgow	Poster Presenter	Registered
He, Ximin Tracy	Arizona State University	Speaker	Registered
Hindley, James W	Imperial College London	Poster Presenter	Registered
Ho, James C.S.	Nanyang Technological University	Poster Presenter	Registered
Hu, Zhaolong	NTU	Poster Presenter	Registered
Huber, Rebecca	ETH Zürich/EMPA St.Gallen	Poster Presenter	Registered
Hui, Liwei	University of Science and Technology of China	Poster Presenter	Registered
Kasemo, Bengt	Chalmers University of Technology	Speaker	Registered
Kelly, Christopher V	Wayne State University	Poster Presenter	Registered
Khapli, Sachin	New York University Abu Dhabi	Poster Presenter	Registered
Kiesel, Irena	Institut Laue-Langevin	Poster Presenter	Registered
Kim, Kevin Minyoung	Princeton University	Poster Presenter	Registered
Kim, Anna A	Chalmers University of Technology	Poster Presenter	Registered
Kjelleberg, Staffan	Singapore Centre for Environmental Life Sciences Eng	Speaker	Registered
Koch, Britta	The University of Nottingham	Poster Presenter	Registered
Koester, Darius V	National Centre for Biological Sciences	Speaker	Registered
Lau, K.H. Aaron	University of Strathclyde	Poster Presenter	Registered
Lee, Sunghee	Iona College	Poster Presenter	Registered
Lee, Luke P	University of California Berklee/NUS	Speaker	Registered
Liedberg, Bo	Nanyang Technological University	Discussion Leader	Registered
Lim, Sierin	Nanyang Technological University	Speaker	Registered
Liu, Juewen	University of Waterloo	Poster Presenter	Registered
Lundgren, Anders	University of Natural Resources and Life Sciences	Poster Presenter	Registered
Ma, Shaohua	University of Oxford	Poster Presenter	Registered
Malmstrom, Jenny	University of Auckland	Poster Presenter	Registered
Maniura, Katharina	EMPA, Swiss Federal Lab for Materials Science & Tech	Poster Presenter	Registered
Mann, Stephen	University of Bristol	Speaker	Registered
Martinez, Karen L	University of Copenhagen	Poster Presenter	Registered
Mason, Alexander F	University of New South Wales	Poster Presenter	Registered
Miserez, Ali	Nanyang Technological University	Poster Presenter	Registered
Mitchell, Michael J	Massachusetts Institute of Technology	Poster Presenter	Registered
Moeslund, Christina	iNANO, Aarhus University	Attendee	Registered
Movilli, Jacopo	University of Twente	Poster Presenter	Registered
Mueller, Daniel	ETH Zurich	Speaker	Registered
Ngassam, Viviane N	University of California, Davis	Poster Presenter	Registered
Oh, Sang-Hyun	University of Minnesota, Twin Cities	Poster Presenter	Registered
Pace, Hudson	Chalmers University of Technology	Poster Presenter	Registered
Parikh, Atul N	University of California, Davis	Chair	Registered

Parveen, Nagma	Chalmers University of Technology	Poster Presenter	Registered
Patwardhan, Dinesh V	US Food & Drug Administration	Poster Presenter	Registered
Peerboom, Nadia	Chalmers University of Technology	Poster Presenter	Registered
Perriman, Adam W	University of Bristol	Poster Presenter	Registered
Petrovykh, Dmitri Y	International Iberian Nanotechnology Laboratory	Poster Presenter	Registered
Pir Cakmak, Fatma	Pennsylvania State University	Poster Presenter	Registered
Rangamani, Padmini	University of California, San Diego	Discussion Leader	Registered
Rao, Madan	National Center for Biological Sciences	Speaker	Registered
Reese, Willie M	University of California at Berkeley	Poster Presenter	Registered
Robson, Timothy T	Newcastle University	Poster Presenter	Registered
Rodriguez-Arco, Laura	University of Bristol	Poster Presenter	Registered
Rosenhahn, Axel	Ruhr-University Bochum	Poster Presenter	Registered
Ryu, Yongsang	University of Minnesota - Twin Cities	Poster Presenter	Registered
Saha, Tanmoy	Indian Institute of Science Education and Research Pune	Poster Presenter	Registered
Sandin, Sara	Nanyang Technological University	Speaker	Registered
Sarker, Mridul Mr	Nanyang Technological University	Poster Presenter	Registered
Schwille, Petra	Max Planck Institute of Biochemistry	Speaker	Registered
Seker, Erkin	University of California, Davis	Speaker	Registered
Shirmardi Shaghasemi, B	University of Natural Resources and Life Sciences	Poster Presenter	Registered
Simonian, Alex	National Science Foundation	Attendee	Registered
Smith, Adam W	University of Akron	Poster Presenter	Registered
Spruijt, Evan	University of Oxford	Poster Presenter	Registered
Stachowiak, Jeanne C	The University of Texas at Austin	Speaker	Registered
Stamou, Dimitrios	University of Copenhagen	Speaker	Registered
Stoddart, Alison M	Springer Nature	Attendee	Registered
Stupp, Samuel I	Northwestern University	Speaker	Registered
SU, WAN-CHIH	University of California, Davis	Poster Presenter	Registered
Sugihara, Kaori Ks	University of Geneva	Poster Presenter	Registered
Sun, Chao	Cornell University	Poster Presenter	Registered
Tan, Cheemeng	University of California, Davis	Speaker	Registered
Tanaka, Motomu	University of Heidelberg	Discussion Leader	Registered
Taylor, Marcus J	National Centre for Biological Sciences	Poster Presenter	Registered
Tian, Liangfei	University of Bristol	Poster Presenter	Registered
Travas-Sejdic, Jadranka	The University of Auckland	Poster Presenter	Registered
Tribet, Christophe	Ecole Normale Supérieure	Poster Presenter	Registered
Vallejo Giraldo, Catalina	CÚRAM / National University of Ireland Galway	Poster Presenter	Registered
Wang, Xiaoling	University of Science and Technology Beijing	Poster Presenter	Registered
Wang, Sungrok	Gwangju Institute Science & Technology	Poster Presenter	Registered
Wenzel, Tobias	University of Cambridge	Poster Presenter	Registered
Whitehead, Kathryn A.	Carnegie Mellon University	Discussion Leader	Registered
Wittenberg, Nathan J	University of Minnesota	Poster Presenter	Registered

Wong, Gerard	University of California, Los Angeles	Speaker	Registered
Woolfson, Dek N	University of Bristol	Speaker	Registered
Ye, Tao	University of California, Merced	Poster Presenter	Registered
Yellen, Benjamin B	Duke University	Discussion Leader	Registered
Yoon, Myung-Han	Gwanju Institute of Science and Technology	Poster Presenter	Registered
Zelzer, Mischa	University of Nottingham	Poster Presenter	Registered
Zhang, Shuai	Pacific Northwest National Lab	Poster Presenter	Registered

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Armanious, Antonius	Chalmers University of Technology	Poster Presenter	Registered
Bally, Marta	Chalmers University of Technology	Poster Presenter	Registered
Barlow, Nathan E	Imperial College London	Poster Presenter	Registered
Bayley, Hagan P	University of Oxford	Attendee	Registered
Carter, Nathan A	Virginia Tech	Poster Presenter	Registered
Chabanon, Morgan	University of California, San Diego	Speaker	Registered
Cohen, Daniel J	Stanford University	Speaker	Registered
D'Arcangelo, Elisa	University of Toronto	Chair	Registered
Dehli, Jeppe	Aarhus University	Poster Presenter	Registered
Diaz, Carolina	Max Planck Institute for Medical Research	Poster Presenter	Registered
Elani, Yuval	Imperial College London	Discussion Leader	Registered
Emilsson, Gustav	Chalmers University of Technology	Poster Presenter	Registered
Gopal, Sahana	Imperial College London	Poster Presenter	Registered
Gunnarsson, Anders M	AstraZeneca R&D	Speaker	Registered
Gustafsson, Hanna	Chalmers University of Technology	Poster Presenter	Registered
Hajiraissi, Roozbeh	University Paderborn	Poster Presenter	Registered
Hay, Jake J	University of Glasgow	Poster Presenter	Registered
Hindley, James W	Imperial College London	Poster Presenter	Registered
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Kiesel, Irena	Institut Laue-Langevin	Discussion Leader	Registered
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Kjelleberg, Staffan	Singapore Centre for Environmental Life Sciences Eng	Attendee	Registered
Koester, Darius V	National Centre for Biological Sciences	Poster Presenter	Registered
Lundgren, Anders	University of Natural Resources and Life Sciences	Speaker	Registered
Mason, Alexander F	University of New South Wales	Speaker	Registered
Milleret, Vincent	Ectica Technologies	Speaker	Registered
Mitchell, Michael J	Massachusetts Institute of Technology	Speaker	Registered
Niepa, Tagbo H	University of Pennsylvania	Discussion Leader	Registered
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