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1. REPORT DATE (DD-MM-YYYY) 17-09-2014	2. REPORT TYPE Final Report	3. DATES COVERED (From - To) 1-May-2014 - 31-Aug-2014
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4. TITLE AND SUBTITLE Final Report: 2014 Bioinspired Materials GRC and GRS: Research Area 7.4 Reactive Chemical Systems; Research Area 8.1 Biochemistry; Research Area 9.2 Mechanical Behavior of Materials	5a. CONTRACT NUMBER W911NF-14-1-0193
	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER 611102

6. AUTHORS Phillip Messersmith, Hyun Ok Ham	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
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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) 65379-MS-CF.2

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 Gordon Research Conference on BIOINSPIRED MATERIALS was held at Sunday River Resort, Newry, Maine, June 22-27, 2014. The Conference was well-attended with 166 participants (attendees list attached). The attendees represented the spectrum of endeavor in this field coming from academia, industry, and government laboratories, both U.S. and foreign scientists, senior researchers, young investigators, and students. Of the 166 attendees, 77 voluntarily responded to a general inquiry regarding ethnicity which appears on our registration forms. Of the 77 respondents, 22% were Minorities, 10% Hispanic, 21% Asian and 10% African American.

15. SUBJECT TERMS
Final Report

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT UU	15. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON Phillip Messersmith
a. REPORT UU	b. ABSTRACT UU	c. THIS PAGE UU			19b. TELEPHONE NUMBER 847-467-5273

Report Title

Final Report: 2014 Bioinspired Materials GRC and GRS: Research Area 7.4 Reactive Chemical Systems; Research Area 8.1 Biochemistry; Research Area 9.2 Mechanical Behavior of Materials

ABSTRACT

The Gordon Research Conference on BIOINSPIRED MATERIALS was held at Sunday River Resort, Newry, Maine, June 22-27, 2014. The Conference was well-attended with 166 participants (attendees list attached). The attendees represented the spectrum of endeavor in this field coming from academia, industry, and government laboratories, both U.S. and foreign scientists, senior researchers, young investigators, and students. Of the 166 attendees, 77 voluntarily responded to a general inquiry regarding ethnicity which appears on our registration forms. Of the 77 respondents, 33% were Minorities – 1% Hispanic, 31% Asian and 1% African American. Approximately 30% of the participants at the 2014 meeting were women.

The Gordon Research Seminar on BIOINSPIRED MATERIALS was held at Sunday River Resort, Newry, Maine, June 21-22, 2014. The Seminar was well-attended with 54 participants (attendees list attached). The attendees represented the spectrum of endeavor in this field coming from academia, industry, and government laboratories, both U.S. and foreign scientists, senior researchers, young investigators, and students. Of the 54 attendees, 28 voluntarily responded to a general inquiry regarding ethnicity which appears on our registration forms. Of the 28 respondents, 25% were Minorities – 4% Hispanic, 21% Asian and 0% African American. Approximately 30% of the participants at the 2014 meeting were women.

In designing the formal speakers program, emphasis was placed on current unpublished research and discussion of the future target areas in this field. There was a conscious effort to stimulate lively discussion about the key issues in the field today. Time for formal presentations was limited in the interest of group discussions. In order that more scientists could communicate their most recent results, poster presentation time was scheduled. Attached is a copy of the formal schedule and speaker program and the poster program. In addition to these formal interactions, "free time" was scheduled to allow informal discussions. Such discussions are fostering new collaborations and joint efforts in the field.

Thank you for your support of this Conference. As you know, in the interest of promoting the presentation of unpublished and frontier-breaking research, Gordon Research Conferences does not permit publication of meeting proceedings. If you wish any further details, please feel free to contact me. Thank you.

Sincerely,
Phillip B. Messersmith, Conference Chairperson
NORTHWESTERN UNIVERSITY

Sincerely,
Hyun Ok Ham, Seminar Chairperson
BETH ISRAEL MED CTR/HARVARD MED SCHOOL

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)

Received

Paper

TOTAL:

Number of Papers published in peer-reviewed journals:

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

Received Paper

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

NAME

Total Number:

Names of other research staff

NAME

PERCENT SUPPORTED

FTE Equivalent:

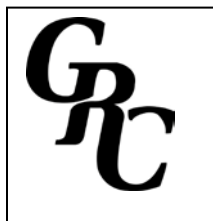
Total Number:

Sub Contractors (DD882)

Inventions (DD882)

Scientific Progress

Technology Transfer



founded in 1931

GORDON RESEARCH CONFERENCES *frontiers of science*
512 Liberty Lane, West Kingston, RI 02892
Phone: 401 783-4011 Fax: 401 783-7644
E-Mail: grc@grc.org
World Wide Web: <http://www.grc.org>

Nancy Ryan Gray, Ph.D.

Director

**2014 GORDON RESEARCH CONFERENCE & SEMINAR
on BIOINSPIRED MATERIALS**

FINAL PROGRESS REPORT

ARMY RESEARCH OFFICE
GRANT NO. W911NF-14-1-0193

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Thank you for your support of this Conference. As you know, in the interest of promoting the presentation of unpublished and frontier-breaking research, Gordon Research Conferences does not permit publication of meeting proceedings. If you wish any further details, please feel free to contact me. Thank you.

Sincerely,
Phillip B. Messersmith, Conference Chairperson
NORTHWESTERN UNIVERSITY

Sincerely,
Hyun Ok Ham, Seminar Chairperson
BETH ISRAEL MED CTR/HARVARD MED SCHOOL

Bioinspired Materials
Exploiting Biological Concepts and Strategies in Functional Synthetic Materials

June 22-27, 2014

Sunday River Resort

Newry, ME

Chair:

Phillip B. Messersmith

Vice Chair:

Timothy J. Deming

Biological organisms evolve within specific environmental constraints, giving rise to elegant and efficient strategies for fabricating materials that often outperform man-made materials of similar composition. A main goal of the interdisciplinary field of bioinspired materials is to unlock the secrets of this process - the composition, processing, self-assembly, hierarchical organization and properties of biological materials - and use this information to synthesize and engineer novel functional materials for a variety of practical applications. Bioinspired concepts are becoming increasingly integrated into materials and devices intended for the consumer, industrial, medical, military and energy sectors. The 2014 Gordon Conference on Bioinspired Materials seeks to capture the excitement of this burgeoning field by offering a cutting-edge scientific program delivered by roster of distinguished invited speakers and discussion leaders who will address the key issues in the field. Planned sessions include DNA and Protein Assemblies, Peptide Self-Assembly, Polypeptides and Engineered Proteins, Glycomimetics, Immunomaterials, Catechols/Catecholamines/Polyphenols, Zwitterionic Polymers, Structure and Mechanics of Biological Materials and Mineralized/Hybrid Materials, and Noncovalent and Adaptive Materials. Invited speakers and discussion leaders represent a variety of scientific disciplines, including biology, biochemistry, chemistry, physics, materials science, mechanical engineering and bioengineering. The conference is intended to promote cross-disciplinary fertilization of new ideas in this emerging field and will create a cohesive community by promoting interactions between junior scientists with prominent senior investigators.

Contributors



**Biomaterials
Science**

TUM
Technische Universität München

**inno
Therapy**

3M

ice
publishing

**Bioinspired,
Biomimetic and
Nanobiomaterials**

SUNDAY

2:00 pm - 9:00 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 **Glycomimetics**

Discussion Leader: **Matthew Gibson** (University of Warwick)

7:40 pm - 8:20 pm **Laura Kiessling** (University of Wisconsin)

"Glycoprotein Mimics for Probing Immunity and Tolerance"

8:20 pm - 8:35 pm Discussion

8:35 pm - 9:15 pm **Katharina Ribbeck** (MIT)

"Bioinspired Hydrogels - Tuning Selective Transport and Microbial Interactions"

9:15 pm - 9:30 pm Discussion

MONDAY

7:30 am - 8:30 am Breakfast

9:00 am - 12:30 pm **Peptides and Zwitterions**

Discussion Leader: **Phil Messersmith** (Northwestern University)

9:00 am - 9:40 am **Sam Stupp** (Northwestern University)

"Two Tales of Bioinspired Supramolecular Materials Design: Capturing Sunlight and Talking to Cells"

9:40 am - 10:00 am Discussion

10:00 am Coffee Break

10:30 am - 11:10 am **Dennis Discher** (University of Pennsylvania)

"Marker of Self Inhibition of Phagocytosis: Mechanisms and Materials Applications"

11:10 am - 11:30 am Discussion

11:30 am - 12:10 pm **Shaoyi Jiang** (University of Washington)

"Molecular Understanding, Design and Development of Zwitterionic Functional Materials"

12:10 pm - 12:30 pm Discussion

12:30 pm Lunch

1:30 pm - 4:00 pm Free Time

4:00 pm - 6:00 pm Poster Session

6:00 pm Dinner

7:30 pm - 9:30 pm **Immunomaterials**

Discussion Leader: **Evan Scott** (Northwestern University)

7:30 pm - 8:10 pm **Jeff Hubbell** (EPFL)

"Engineering Bioaffinity Between Growth Factors and the Extracellular Matrix"

8:10 pm - 8:30 pm Discussion

8:30 pm - 9:10 pm **Joel Collier** (University of Chicago)

"Peptide Assemblies for Immunomodulation"

9:10 pm - 9:30 pm Discussion

TUESDAY

7:30 am - 8:30 am Breakfast

9:00 am - 12:30 pm **Mineralized/Hybrid Materials, Biophotonics and Catechols**

Discussion Leader: **LaShanda Korley** (Case Western Reserve University)

9:00 am - 9:40 am **Lara Estroff** (Cornell University)

"Structure and Mechanical Properties of Biogenic and Synthetic Calcite Single Crystals"

9:40 am - 10:00 am Discussion

10:00 am Coffee Break

10:30 am - 11:10 am **Dan Morse** (UC-Santa Barbara)

"Biophotonics: Tunable Control of Camouflage, Communication and Enhancement of Photosynthesis in Molluscs"

11:10 am - 11:30 am Discussion

11:30 am - 12:10 pm **Aranzazu del Campo** (MPI-Mainz)

"Dynamic Mimics of the Extracellular Matrix"

12:10 pm - 12:30 pm Discussion

12:30 pm Lunch

1:30 pm - 4:00 pm Free Time

4:00 pm - 6:00 pm Poster Session

6:00 pm Dinner

7:30 pm - 9:30 pm **The New Organic Architecture: Form and Function with DNA and Proteins**

Discussion Leader: **Jennifer Cha** (University of Colorado)

7:30 pm - 8:10 pm **Roman Jerala** (University of Ljubljana)

"Designed Modular Protein Structures - A Path Unexplored by Nature?"

8:10 pm - 8:30 pm Discussion

8:30 pm - 9:10 pm **Hanadi Sleiman** (McGill University)

"DNA Cages and Nanotubes: Synthesis and Biological Properties"

9:10 pm - 9:30 pm Discussion

WEDNESDAY

7:30 am - 8:30 am Breakfast

8:30 am Group Photo

9:00 am - 12:30 pm **Bioinspired Synthetic Polymers**

Discussion Leader: **Jeremiah Johnson** (MIT)

9:00 am - 9:40 am **Zhibin Guan** (UC-Irvine)

"Biomimetic Design of Dynamic and Self-Healing Polymers"

9:40 am - 10:00 am Discussion

10:00 am Coffee Break

10:30 am - 11:10 am **Kazuhiko Ishihara** (University of Tokyo)

"Functionalization of Extremely Biocompatible Phospholipid Polymers"

11:10 am - 11:30 am Discussion

11:30 am - 11:45 am **Ali Miserez** (Nanyang Technological University, Singapore)

"Squid Sucker Ring Teeth (SRT): A Supra-Biomolecular Network Reinforced by Nano-Confined Beta-Sheets that Are Encoded by an Ancient Gene Family"

11:45 am - 11:50 am Discussion

11:50 am - 12:05 pm **Aaron Esser-Kahn** (University of California-Irvine)

"Synthetic Immunomodulatory Materials - Probing a Code Without a Key"

12:05 pm - 12:10 pm Discussion

12:10 pm - 12:25 pm **Meital Reches** (Hebrew University of Jerusalem)

"Probing the Interactions of Individual Biomolecules with Inorganic Substrates"

12:25 pm - 12:30 pm Discussion

12:30 pm Lunch

1:30 pm - 4:00 pm Free Time

4:00 pm - 6:00 pm Poster Session

6:00 pm Dinner

7:00 pm - 7:30 pm 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

7:30 pm - 9:30 pm **Peptides and Polymers at Interfaces**

Discussion Leader: **Aaron Lau** (Strathclyde University)

7:30 pm - 8:10 pm **Rajesh Naik** (Air Force Materials Lab)
"Evolution and Intelligent Design of Peptide Recognition Elements"

8:10 pm - 8:30 pm Discussion

8:30 pm - 9:10 pm **Haeshin Lee** (KAIST)
"Bio-Inspired Adhesive Polymers at Interfaces in Energy Storage Devices"

9:10 pm - 9:30 pm Discussion

THURSDAY

7:30 am - 8:30 am Breakfast

9:00 am - 12:30 pm **Polypeptides and Engineered Proteins**

Discussion Leader: **Tim Deming** (UCLA)

9:00 am - 9:40 am **Jianjun Cheng** (University of Illinois-Urbana)
"Functional Polypeptide and Polyurea Materials"

9:40 am - 10:00 am Discussion

10:00 am Coffee Break

10:30 am - 11:10 am **Ashutosh Chilkoti** (Duke University)
"Discovery of a Vast New Family of LCST and UCST Peptide Polymers"

11:10 am - 11:30 am Discussion

11:30 am - 12:10 pm **Matt Francis** (University of California - Berkeley)

12:10 pm - 12:30 pm Discussion

12:30 pm Lunch

1:30 pm - 4:00 pm Free Time

4:00 pm - 5:30 pm Poster Session

5:30 pm - 7:30 pm **Polyphenols and Functional Fibers**

Discussion Leader: **Niels Holten-Andersen** (MIT)

5:30 pm - 6:10 pm **Markus Buehler** (MIT)
"Biomateriomics of Functional Fibers"

6:10 pm - 6:30 pm Discussion

6:30 pm - 7:10 pm **Frank Caruso** (University of Melbourne)
"Metal-Polyphenol Networks: From Nanoengineered Thin Films to Functional Particles"

7:10 pm - 7:30 pm Discussion

8:00 pm Dinner

FRIDAY

7:30 am - 8:30 am Breakfast

9:00 am

Departure

Funding for this conference was made possible (in part) by 1 R13 EB 018723-01 from the National Institute of Biomedical Imaging and Bioengineering. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.

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Bioinspired Materials (GRS)
Gordon Research Seminar
Better Materials via Biological Blueprints

June 21-22, 2014

Sunday River Resort

Newry, ME

Chair:

Hyun Ok Ham

Associate Chair:

Benjamin D. Almquist

The Gordon Research Seminar on Bioinspired Materials is a unique forum for graduate students, post-docs, and other scientists with comparable levels of experience and education to present and exchange new data and cutting edge ideas.

This meeting will focus on developing materials with improved properties and functions by harnessing the principles of bioinspired molecular design, fabrication, and assembly across the nano, micro, and macroscales. Our mentorship component will cover strategies on defining and articulating a distinctive research agenda for soon-to-be independent investigators.

Contributors



SATURDAY

- 1:00 pm - 5:00 pm Arrival and Check-in
- 3:30 pm - 3:45 pm Introductory Comments by GRC Site Staff / Welcome by the GRS Conference Chair
- 3:45 pm - 4:30 pm **Keynote Session**
- Discussion Leaders: **Yevgeny Brudno** (Harvard University) and **Jim DeYoreo** (PNNL)
- 3:45 pm - 4:15 pm **Daniel Morse** (University of California, Santa Barbara)

"Biological and Bio-Inspired Synthesis of Nanostructured Minerals and Nanocomposites"

4:15 pm - 4:30 pm Discussion

4:30 pm - 6:00 pm Poster Session I (*Last names A - M*)

6:00 pm Dinner

7:30 pm - 9:30 pm **Bioinspired Synthetic Materials: Design, Synthesis, and Engineering**

Discussion Leaders: **Abigail Knight** (UC Berkeley) and **Katharina Ribbeck** (MIT)

7:30 pm - 7:50 pm **Niklas Gangloff** (University Würzburg)

"A New Tool for Biomimetic Materials Synthesis: Ring-Opening Polymerization of Polypeptoids from Solid-Support"

7:50 pm - 8:00 pm Discussion

8:00 pm - 8:20 pm **Aleksandr Zhukhovitski** (Massachusetts Institute of Technology)

"Suprametallogels Based on Fujita Sphere Self-Assembly"

8:20 pm - 8:30 pm Discussion

8:30 pm - 8:50 pm **Hanze Ying** (University of Illinois at Urbana-Champaign)

"Dynamic Urea Bond for the Design of Reversible and Self-Healing Polymers"

8:50 pm - 9:00 pm Discussion

9:00 pm - 9:20 pm **Sahar Rahmani** (University of Michigan)

"Chemically Orthogonal Three-Patch Microparticles and Their Applications"

9:20 pm - 9:30 pm Discussion

SUNDAY

7:30 am - 8:30 am Breakfast

9:00 am - 11:00 am **Functional Applications of Bioinspired Materials**

Discussion Leaders: **Carrie Brubaker** (Ecole Polytechnique Federale de Lausanne) and **Kevin Vargo** (University of Pennsylvania)

9:00 am - 9:20 am **Ji Hyun Ryu** (Korea Advanced Institute of Science and Technology)

"Intraperitoneal Patch: A Novel Approach for Bio-Adhesives"

9:20 am - 9:30 am Discussion

9:30 am - 9:50 am **Nicholas Stephanopoulos** (Northwestern University)

"DNA-Peptide Nanotubes for Selective Neural Stem Cell Differentiation"

9:50 am - 10:00 am Discussion

10:00 am - 10:20 am **Karla-Luise Herpoldt** (Imperial College London)

"Multivalent Biological Interactions as Inhibitors of HIV-1 Protease"

10:20 am - 10:30 am Discussion

10:30 am - 10:50 am **Allen Chen** (Massachusetts Institute of Technology)

"Engineering Living Functional Materials"

10:50 am - 11:00 am Discussion

11:00 am - 12:30 pm Poster Session II (*Last names N - Z*)

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

Faculty Panel Discussion: Defining, Articulating, and Funding a Distinctive Research Agenda

Discussion Leaders: **Hyun Ok Ham** (Beth Israel Medical Center / Harvard Medical School) and **Ben Almquist** (MIT / Imperial College London)

Panelists:

- **Jim De Yoreo** (Pacific Northwest National Laboratory)
- **Katharina Ribbeck** (Massachusetts Institute of Technology)
- **Phillip B. Messersmith** (Northwestern University)
- **Daniel Morse** (University of California, Santa Barbara)

2:30 pm - 3:00 pm Evaluation Period

Fill in GRS Evaluation Forms

3:00 pm Seminar Concludes

Funding for this conference was made possible (in part) by 1 R13 EB 018723-01 from the National Institute of Biomedical Imaging and Bioengineering. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.

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Bioinspired Materials (2014)

Name	Organization	Participation	Status
Almquist, Benjamin D	MIT / Imperial College London	Poster Presenter	Registered
Ayres, Neil	University of Cincinnati	Poster Presenter	Registered
Azevedo, Helena S.	Queen Mary University of London	Attendee	Registered
Bai, Tao	University of Washington	Poster Presenter	Registered
Baker, Matthew B	Eindhoven University of Technology	Poster Presenter	Registered
Barrett, Devin G	Northwestern University	Poster Presenter	Registered
Baumgartner, Ryan B	University of Illinois at Urbana-Champaign	Poster Presenter	Registered
Belitsky, Jason M	Oberlin College	Poster Presenter	Registered
Brennan, Mary J	Purdue University	Poster Presenter	Registered
Brubaker, Carrie E	Ecole Polytechnique Federale de Lausanne (EPFL)	Poster Presenter	Registered
Bruchet, Marion	Clarkson University	Poster Presenter	Registered
Brudno, Yevgeny	Harvard University	Poster Presenter	Registered
Buehler, Markus J.	Massachusetts Institute of Technology	Speaker	Registered
Cao, Zhiqiang	Wayne State University	Attendee	Registered
Carter, Nathan A	Virginia Tech	Poster Presenter	Registered
Caruso, Frank	The University of Melbourne	Speaker	Registered
Cha, Jennifer	University of Colorado	Discussion Leader	Registered
Champion, Julie A	Georgia Institute of Technology	Poster Presenter	Registered
Chan, Leslie W	University of Washington	Poster Presenter	Registered
Chang, Chia-Chih	University of Massachusetts-Amherst	Poster Presenter	Registered
Chen, Allen Y	MIT	Poster Presenter	Registered
Chen, Chun-Long	Pacific Northwest National Laboratory	Poster Presenter	Registered
Chen, Shu-Hui	NCKU Research & Development Foundation	Poster Presenter	Registered
Chen, Bo	Sanofi-Genzyme	Attendee	Registered
Chen, Chun-Teh	Massachusetts Institute of Technology	Attendee	Registered
Cheng, Jianjun	University of Illinois at Urbana-Champaign	Speaker	Registered
Chilkoti, Ashutosh	Duke University	Speaker	Registered
Chung, Jaeyoon	University of California - Irvine	Poster Presenter	Registered
Cohen Stuart, Martien A	Wageningen University	Attendee	Registered
Collier, Joel H	University of Chicago	Speaker	Registered
Collin, Estelle C	Queen Mary, University of London	Poster Presenter	Registered
Cui, Yue	Utah State University	Attendee	Registered

Cui, Honggang	Johns Hopkins University	Attendee	Registered
De Vries, Renko	Wageningen University	Attendee	Registered
Del Campo, Aranzazu	Max-Planck-Institut fur Polymerforschung	Speaker	Registered
Deming, Timothy J	University of California, Los Angeles	Vice Chair	Registered
Derouchey, Jason	University of Kentucky	Poster Presenter	Registered
Discher, Dennis E	University of Pennsylvania	Speaker	Registered
Domeradzka, Natalia NE	Wageningen University & Research centre	Poster Presenter	Registered
Dong, He	Clarkson University	Poster Presenter	Registered
Dooling, Lawrence J	California Institute of Technology	Poster Presenter	Registered
Drummond, James L	NIDCR	Attendee	Registered
Dutt, Meenakshi	Rutgers	Poster Presenter	Registered
Eakins, Galen L	Vicoria University of Wellington	Poster Presenter	Registered
Ellenbroek, Wouter G	Eindhoven University of Technology	Attendee	Registered
Erb, Randall M	Northeastern University	Poster Presenter	Registered
Esser-Kahn, Aaron P	UCI	Speaker	Registered
Estroff, Lara A	Cornell University	Speaker	Registered
Farrow, Blake	California Institute of Technology	Poster Presenter	Registered
Francis, Matthew B	University of California, Berkeley	Speaker	Registered
Freeman, Ronit	Northwestern University	Poster Presenter	Registered
Fu, Jinglin	Rutgers University	Poster Presenter	Registered
Gagner, Jennifer E	Beth Israel Deaconess Medical Center	Poster Presenter	Registered
Gangloff, Niklas	University Würzburg	Poster Presenter	Registered
Gao, Haifeng	University of Notre Dame	Poster Presenter	Registered
Geng, Xi	Virginia Polytechnic Institute	Poster Presenter	Registered
Gibson, Matthew	University of Warwick	Discussion Leader	Registered
Godula, Kamil	University of California, San Diego	Poster Presenter	Registered
Gorodetsky, Alon	University of California, Irvine	Poster Presenter	Registered
Grindy, Scott C	Massachusetts Institute of Technology	Poster Presenter	Registered
Guan, Zhibin N	UC-Irvine	Speaker	Registered
Ham, Hyun Ok	Beth Israel Med Ctr/ Harvard Med School	Poster Presenter	Registered
He, Ximin Tracy	Arizona State University	Poster Presenter	Registered
Herpoldt, Karla-Luise	Imperial College London	Poster Presenter	Registered
Holten-Andersen, Niels	Massachusetts Institute of Technology	Discussion Leader	Registered
Hubbell, Jeffrey A	EPFL	Speaker	Registered

Hwang, Dong Soo	Pohang University of Science and Technology	Poster Presenter	Registered
Ishihara, Kazuhiko	University of Tokyo	Speaker	Registered
Jerala, Roman	University of Ljubljana	Speaker	Registered
Jiang, Shaoyi	University of Washington	Speaker	Registered
Jin, Kai	Massachusetts Institute of Technology	Attendee	Registered
Jo, Seongyeon	InnoTherapy	Poster Presenter	Registered
Johnson, Jeremiah	MIT	Poster Presenter	Registered
Joshi, Neel S	Harvard University, Wyss Institute	Poster Presenter	Registered
Kamat, Neha P	Harvard University	Poster Presenter	Registered
Kaminski, George A	Worcester Polytechnic Institute	Poster Presenter	Registered
Kamperman, Marleen	Wageningen University	Poster Presenter	Registered
Kazantsev, Alexei V	Mosaic Biosciences	Attendee	Registered
Keten, Sinan	Northwestern University	Poster Presenter	Registered
Kiessling, Laura L	University of Wisconsin, Madison	Speaker	Registered
Kim, Minkyu	Polypeptides and Engineered Proteins	Poster Presenter	Registered
Kim, Sunjin	KAIST	Poster Presenter	Registered
Kizhakkedathu, Jayachandran N	University of British Columbia	Poster Presenter	Registered
Kleiman, Maya	UCI	Poster Presenter	Registered
Knight, Abigail S	UC Berkeley	Poster Presenter	Registered
Kokkoli, Efi	University of Minnesota	Poster Presenter	Registered
Kong, Na	University of British Columbia	Poster Presenter	Registered
Korley, LaShanda T	Case Western Reserve University	Discussion Leader	Registered
Krogsgaard, Marie	iNANO, Aarhus University	Poster Presenter	Registered
Lau, K.H. Aaron	University of Strathclyde	Discussion Leader	Registered
Lee, Haeshin	KAIST	Speaker	Registered
Li, Qiaochu	Massachusetts Institute of Technology	Poster Presenter	Registered
Liao, Der-Ing	E. I. DuPont	Attendee	Registered
Lim, Sierin	Nanyang Technological University	Poster Presenter	Registered
Liu, Julie C	Purdue University	Poster Presenter	Registered
Maggi, Alessandro	California Institute of Technology	Poster Presenter	Registered
Maier, Greg P	University of California, Santa Barbara	Poster Presenter	Registered
Majumder, Paulomi	American Chemical Society	Attendee	Registered
Markowitz, Michael	Office of Basic Energy Sciences	Attendee	Registered
Mehrotra, Gopal K	Motilal Nehru National Institute of Technology	Poster Presenter	Registered

Messersmith, Phillip B	Northwestern University	Chair	Registered
Minary-Jolandan, Majid	University of Texas at Dallas	Attendee	Registered
Miserez, Ali	Nanyang Technological University	Speaker	Registered
Montalvan-Sorros, Danai	National University of Mexico	Poster Presenter	Registered
Morse, Daniel	University of California, Santa Barbara	Speaker	Registered
Naik, Rajesh R	Air Force Research Laboratory	Speaker	Registered
Nguyen, Du	University of California, Irvine	Poster Presenter	Registered
Nguyen, Hung D	University of California, Irvine	Poster Presenter	Registered
Nonappa, Nonappa	Aalto University School of Science	Poster Presenter	Registered
Oh, Dongyeop X	POSTECH	Poster Presenter	Registered
Olsen, Bradley D	Massachusetts Institute of Technology	Poster Presenter	Registered
Ostrowski, Alexis D	Bowling Green State University	Poster Presenter	Registered
Paez, Julieta I.	Max-Planck-Institute for Polymer Research	Poster Presenter	Registered
Park, Won Min	Georgia Institute of Technology	Poster Presenter	Registered
Parmeggiani, Fabio	University of Washington	Poster Presenter	Registered
Pham, Thao	Wageningen University	Poster Presenter	Registered
Rahbar, Nima	Worcester Polytechnic Institute	Poster Presenter	Registered
Rahmani, Sahar	University of Michigan	Poster Presenter	Registered
Rayneau-Kirkhope, Daniel J	Aalto University	Poster Presenter	Registered
Reches, Meital	The Hebrew University of Jerusalem	Speaker	Registered
Renggli, Kasper	Massachusetts Institute of Technology	Poster Presenter	Registered
Ribbeck, Katharina	Massachusetts Institute of Technology	Speaker	Registered
Roberts, Stefan	Duke University	Poster Presenter	Registered
Rombouts, Wolf H	Wageningen University	Poster Presenter	Registered
Ryu, Ji Hyun	Korea Advanced Institute of Science and Technology	Poster Presenter	Registered
Schmidt, Tannin A	University of Calgary	Poster Presenter	Registered
Schwarz, Benjamin H	Indiana University	Poster Presenter	Registered
Scott, Evan	Northwestern University	Discussion Leader	Registered
Seidt, Britta	Max Planck Institute of Colloids and Interfaces	Poster Presenter	Registered
Shin, Donglee	ChBE, Georgia Institute of Technology	Poster Presenter	Registered
Shin, Mikyung M	Korea Advanced Institute of Science and Technology	Poster Presenter	Registered
Simon, Joseph	Duke University Department of Biomedical Engineeri	Poster Presenter	Registered

Sleiman, Hanadi F.	McGill University	Speaker	Registered
Song, Ziyuan	University of Illinois at Urbana-Champaign	Poster Presenter	Registered
Stephanopoulos, Nicholas	Northwestern University	Poster Presenter	Registered
Storm, Cornelis	Eindhoven University of Technology	Attendee	Registered
Storm, Ingeborg M	Wageningen University	Poster Presenter	Registered
Stupp, Samuel I	Northwestern University	Speaker	Registered
Sunny, Steffi	Harvard University	Poster Presenter	Registered
Sur, Shantanu	Northwestern University	Poster Presenter	Registered
Tang, Shengchang	Massachusetts Institute of Technology	Poster Presenter	Registered
Taraballi, Francesca	Houston Methodist Research Institute - Nanomedicin	Poster Presenter	Registered
Tertuliano, Ottman	Califorinia Institute of Technology	Poster Presenter	Registered
Thompson, Michael	Technische Universitaet Dresden	Poster Presenter	Registered
Vargo, Kevin B	University of Pennsylvania	Poster Presenter	Registered
Velluto, Diana	Northwestern University	Attendee	Registered
Webber, Matthew J	Massachusetts Institute of Technology	Poster Presenter	Registered
Weitzhandler, Isaac	Duke University	Poster Presenter	Registered
Wise, Nicola	The Royal Society of Chemistry	Attendee	Registered
Wlodarczyk-Biegun, Malgorzata K	Wageningen UR, PCC	Poster Presenter	Registered
Wodicka, James R	Purdue University	Poster Presenter	Registered
Wong, Shing-Chung J	University of Akron	Attendee	Registered
Xiong, Menghua	University of Illinois at Urbana-Champaign	Poster Presenter	Registered
Xu, Weiming	Yale University, Nanobiology Institute	Poster Presenter	Registered
Yadavalli, Vamsi K	Virginia Commonwealth University	Poster Presenter	Registered
Yang, Juan J	Wageningen University	Poster Presenter	Registered
Ying, Hanze	University of Illinois at Urbana-Champaign	Poster Presenter	Registered
Zhang, Ke	Northeastern University	Poster Presenter	Registered
Zhang, Mingjun	Ohio State University	Poster Presenter	Registered
Zhang, Yongliang	Rutgers, the State University of New Jersey	Poster Presenter	Registered
Zhang, Peng	University of Washington	Attendee	Registered
Zhang, Shiyi	MIT	Attendee	Registered
Zhao, Wei	Center for Research and Technology	Attendee	Registered
Zhong, Chao	MIT	Poster Presenter	Registered
Zhou, Xianfeng	The University of Akron	Poster Presenter	Registered

Zhukhovitskiy, Aleksandr V	Massachusetts Institute of Technology	Attendee	Registered
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166 Attendees

Bioinspired Materials (GRS) (2014)

Name	Organization	Participation	Status
Almquist, Benjamin D	MIT / Imperial College London	Chair	Registered
Baumgartner, Ryan B	University of Illinois at Urbana-Champaign	Poster Presenter	Registered
Brennan, Mary J	Purdue University	Poster Presenter	Registered
Brubaker, Carrie E	Ecole Polytechnique Federale de Lausanne (EPFL)	Discussion Leader	Registered
Bruchet, Marion	Clarkson University	Poster Presenter	Registered
Brudno, Yevgeny	Harvard University	Discussion Leader	Registered
Carter, Nathan A	Virginia Tech	Poster Presenter	Registered
Chan, Leslie W	University of Washington	Poster Presenter	Registered
Chang, Chia-Chih	University of Massachusetts-Amherst	Poster Presenter	Registered
Chen, Allen Y	MIT	Speaker	Registered
Chung, Jaeyoon	University of California - Irvine	Poster Presenter	Registered
De Yoreo , Jim	Pacific Northwest National Laboratory (PNNL)	Speaker	Registered
Dooling, Lawrence J	California Institute of Technology	Poster Presenter	Registered
Eakins, Galen L	Vicoria University of Wellington	Poster Presenter	Registered
Freeman, Ronit	Northwestern University	Poster Presenter	Registered
Gangloff, Niklas	University Würzburg	Speaker	Registered
Geng, Xi	Virginia Polytechnic Institute	Poster Presenter	Registered
Grindy, Scott C	Massachusetts Institute of Technology	Poster Presenter	Registered
Ham, Hyun Ok	Beth Israel Med Ctr/ Harvard Med School	Chair	Registered
Herpoldt, Karla-Luise	Imperial College London	Speaker	Registered
Kim, Sunjin	KAIST	Poster Presenter	Registered
Knight, Abigail S	UC Berkeley	Discussion Leader	Registered
Kong, Na	University of British Columbia	Poster Presenter	Registered
Li, Qiaochu	Massachusetts Institute of Technology	Poster Presenter	Registered
Maggi, Alessandro	California Institute of Technology	Poster Presenter	Registered
Maier, Greg P	University of California, Santa Barbara	Poster Presenter	Registered
Messersmith, Phillip B	Northwestern University	Speaker	Registered
Montalvan-Sorrosa, Danai	National University of Mexico	Poster Presenter	Registered
Morse, Daniel	University of California, Santa Barbara	Speaker	Registered
Nonappa, Nonappa	Aalto University School of Science	Poster Presenter	Registered
Rahmani, Sahar	University of Michigan	Speaker	Registered
Ren, Hang	University of Michigan	Poster Presenter	Registered
Ribbeck, Katharine	Massachusetts Institute of Technology (MIT)	Speaker	Registered
Roberts, Stefan	Duke University	Poster Presenter	Registered
Ryu, Ji Hyun	Korea Advanced Institute of Science and Technology	Speaker	Registered
Schwarz, Benjamin H	Indiana University	Poster Presenter	Registered
Seidt, Britta	Max Planck Institute of Colloids and Interfaces	Poster Presenter	Registered
Shin, Mikyung M	Korea Advanced Institute of Science and Technology	Poster Presenter	Registered
Simon, Joseph	Duke University Department of Biomedical Engineeri	Poster Presenter	Registered
Song, Ziyuan	University of Illinois at Urbana-Champaign	Poster Presenter	Registered
Stephanopoulos, Nicholas	Northwestern University	Speaker	Registered
Sunny, Steffi	Harvard University	Poster Presenter	Registered
Sur, Shantanu	Northwestern University	Poster Presenter	Registered
Tertuliano, Ottman	Californina Institute of Technology	Poster Presenter	Registered
Thompson, Michael	Technische Universitaet Dresden	Poster Presenter	Registered
Vargo, Kevin B	University of Pennsylvania	Discussion Leader	Registered

Webber, Matthew J	Massachusetts Institute of Technology	Poster Presenter	Registered
Weitzhandler, Isaac	Duke University	Poster Presenter	Registered
Wodicka, James R	Purdue University	Poster Presenter	Registered
Xiong, Menghua	University of Illinois at Urbana-Champaign	Poster Presenter	Registered
Ying, Hanze	University of Illinois at Urbana-Champaign	Speaker	Registered
Zhang, Yongliang	Rutgers, the State University of New Jersey	Poster Presenter	Registered
Zhou, Xianfeng	The University of Akron	Poster Presenter	Registered
Zhukhovitskiy, Aleksandr V	Massachusetts Institute of Technology	Speaker	Registered
54 Attendees			