

momentUM

ncrc newsletter

Summer 2015

Welcome to the Summer 2015 issue of momentUM. In this issue we will explore the collaborative accomplishments of the honored Professor Sharon Glotzer and share the results from our 5th Annual NCRC Quality of Life Survey 2015.

I hope you have been enjoying the wonderful summer weather!

David Canter, Executive Director, NCRC



Did You Know

National Academy

The University of Michigan has over 70 faculty members whom are members of the [National Academy](#).



NATIONAL ACADEMY
OF SCIENCES

Simons Investigator

Sharon Glotzer was among the inaugural class of 21 researchers to be named a [Simons Investigator](#) for her work on predicting how nanoparticles assemble. To date there are 34 Simons Investigators. The Simons Investigators program provides a stable base of support for outstanding

An Interview with Sharon Glotzer

An Interview with Sharon Glotzer

Sharon C. Glotzer is the Stuart W. Churchill Collegiate Professor of Chemical Engineering, as well as Professor of Materials Science & Engineering, Macromolecular Science & Engineering, Physics, and Applied Physics. She was recently appointed to the National Academy of Sciences. In this interview, Melissa Chronicle, North Campus Research Complex Communications Administrator, visits Prof. Glotzer to talk about moving the Glotzer Group to NCRC, mentoring the next generation of researchers, and the possibilities offered by co-location, collaboration, sharing research, and using data science methods across disciplines.



undertake long-term study of fundamental questions.

The *h*-Index

Sharon Glotzer's publications have received over 14,000 citations and her *h-index* is 61. The *h-index* is an index that attempts to measure both the productivity and citation impact of the published body of work of a scientist or scholar.



Biointerfaces Institute

The Biointerfaces Institute (BI), was founded at NCRC in January 2012. Here the scientists redefine the frontiers of health sciences by fostering cross-disciplinary technological breakthroughs in nanotechnology, advanced materials, cell engineering, and microfluidics. BI is now home to 22 established research laboratories for collaborative research efforts between researchers from the Dental School, College of Engineering, Medical School, and College of Pharmacy.

Biointerfaces Institute Faculty Mentioned

[Nicholas Kotov](#)

Melissa Chronicle: Briefly tell us about your research background.

Sharon C. Glotzer: I'm basically a soft matter scientist. My approach is a physics one. This means asking fundamental questions and searching for common themes and phenomena. The engineering aspect of it goes beyond discovery to understanding rules and exploring how to use them. If we want this kind of material, this kind of object, how do we make it?

My group's work is all theoretical and done on computers. The Glotzer group comprises students who, currently, are getting PhDs in chemical engineering, materials science, physics, applied physics, and macromolecular science and engineering. If you were to go into the lab and talk with the group members, learn about their research, and [try] to figure out which one's the materials scientist, which one's the physicist, you'd be hard-pressed to do it.

MC: Is that similar, would you say, [in engineering] across the United States? Or do you feel that it's kind of a luxury here at U-M that everybody can work in so many different fields?

SCG: It is definitely the trend everywhere that science is moving to tackle more interdisciplinary questions, and interdisciplinary approaches to answering questions. Some of the most challenging and most interesting questions in science today sit at what used to be very traditional boundaries. They straddle multiple domains, multiple disciplines. But that doesn't mean that every institution, every university, is set up in a way that facilitates interdisciplinary research. U-M does an exceptional job of that.

For example, [Nick Kotov's](#) office is right by mine. We have been collaborating since he came here about a decade ago. And that's a perfect example, where he's a chemist turned chemical engineer, and I'm a physicist turned chemical engineer. He makes nanoparticles in his lab, and will sometimes come to us and say, "Look at this image! How cool is this, what is going on here?" And then we try to do simulations, we try to understand, why are these materials behaving like this, and then if we can understand it, we can make predictions that suggest new experiments for the Kotov Group.

MC: Are there any other collaborations you've had at U-M or NCRC since you've moved here?

SCG: Well, I collaborate with [Mike Solomon](#) and [Ron Larson](#), whose offices are also near mine; [Joerg Lahann](#), who's next door to me-- we've all [been] in the same hallway, in chemical engineering, for years. We have new collaborations with people from the University that just come out of the blue all the time, and just now I'm getting involved in research at NCRC that I expect I would not have thought to do had I not moved over to this complex.

MC: What's your favorite part of having the students in the Glotzer Group?

SCG: Discovering together. It's so exciting when they come in with data and together we figure out what is going on. Sometimes it's a whole team working on a project, because many of the projects are highly collaborative in my group. And, it's not uni-directional. I learn as much from them as they do from me, if not more.



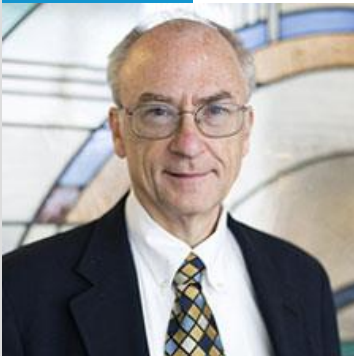
Joseph B. and Florence V. Cejka
Professor of Chemical Engineering
Professor: Biomedical Engineering,
Materials Science & Engineering,
Macromolecular Science &
Engineering

[Michael Solomon](#)



Professor: Chemical Engineering;
Macromolecular Science and
Engineering;
Associate Dean for Academic
Programs and Initiatives, Rackham
Graduate School

[Ronald G. Larson](#)



George Granger Brown Professor,
Chemical Engineering; A.H. White
Distinguished University Professor,
Chemical Engineering;
Professor: Biomedical Engineering,

Many of my grad students, postdocs and research scientists collaborate not only with others in the group, but also with other groups at NCRC, and groups outside of Michigan. One thing I've noticed about students today--certainly my students -- with the whole social media revolution, there's a different attitude, where they very much want to share what they discover, what they do, so it has an immediate impact. They want to give it away. And so we share codes, and that's a different mindset from previous generations. My students are always trying to figure out new ways of sharing what we do, even besides the traditional publications.

MC: Have you experienced even more of that opportunity to share since you were elected to the National Academy of Sciences? And congratulations--

SCG: Thank you. It's too soon to see any sort of difference like that. But I will say, it probably won't affect [sharing research], only because in our community, we're already looked at as one of the leaders in that area, in the open sharing of codes and data and trying to push that aspect of scientific inquiry.

MC: One last question: Has the NCRC location been advantageous in your research advancement at all?

SCG: I like the move to NCRC because the infrastructure is better, and because I'm exposed to new people and new ideas. NCRC facilitates the collaborations that came with me. It nurtures them; it makes it easier for us to collaborate.

The computational space downstairs made it possible for me to co-locate my group. My group was split into two places for years, because we couldn't find a place big enough for the whole group, which is upwards of twenty-five to thirty researchers, not counting the undergrads. So far, that's been a huge advantage to us. I'm looking forward to more of my colleagues making the move to NCRC.

[Full Interview >>](#)

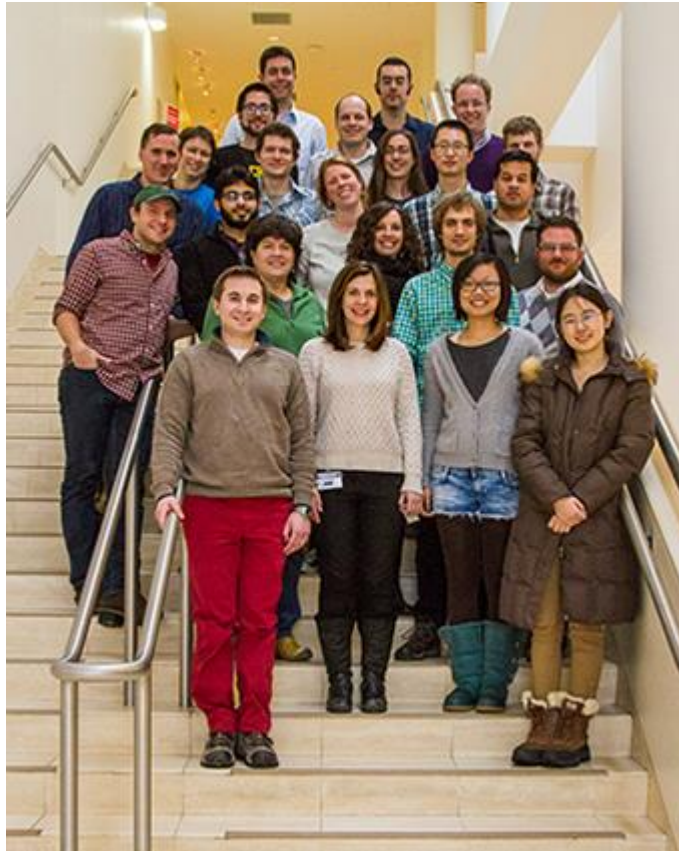
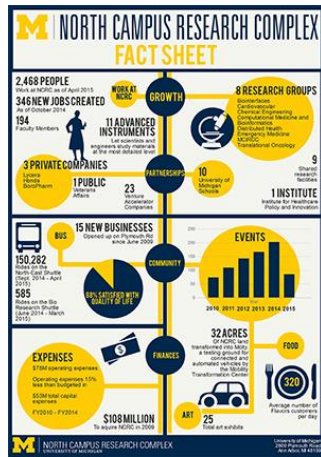
Mechanical Engineering,
Macromolecular Science and
Engineering

[Joerg Lahann](#)



Director of the Biointerfaces
Institute
Professor: Biomedical Engineering,
Chemical Engineering,
Macromolecular Science and
Engineering, Materials Science and
Engineering

NCRC Facts



The Glotzer Group

NCRC Quality of Life Survey

NCRC has completed its 5th annual Quality of Life Survey. We are pleased with the levels of satisfaction among those who work at NCRC. Distributed to 2,168 NCRC community members, the survey had a 25.8% response rate, allowing us to derive meaningful results.

- Of the 561 respondents that took the survey:
- 28% are new occupants (moved to NCRC within the last year)
 - 23% work in a laboratory in some capacity
 - 42% use the North-East Shuttle bus
 - 25% are Wellness Center members
 - 8% are faculty members

Summary Results for 2015 Compared with Previous Years

Area of Focus	Respondents Satisfied* 2015	Respondents Satisfied* 2014	Respondents Satisfied* 2013	Respondents Satisfied* 2012	Respondents Satisfied* 2011
Overall Satisfaction	88%	88%	83%	76%	65%
Building Access & Wayfinding	76%	77%	68%	66%	58%
Building Security	84%	87%	82%	82%	77%
Building Services	90%	86%	87%	82%	79%
Research Services	89%	94%	86%	82%	NA
IT Services	80%	80%	83%	72%	65%
Conference Rooms	78%	81%	62%	NA	NA
Amenities & Requests	84%	84%	81%	NA	NA
Communications	70%	71%	61%	NA	NA
Parking	81%	75%	74%	73%	66%
Transportation	80%	82%	63%	n/a	n/a
Collaboration	63%	62%	57%	44%	34%
Fitness / Wellness	92%	93%	62%	50%	57%
Food	53%	62%	53%	16%	15%

By combining the survey results with feedback over the past year and sharing this with our service providers at NCRC, multiple changes and improvements have been made:

- A sidewalk installation project to enhance accessibility between Building 520 lobby and nearby parking lots (NC85 and NC84) will begin in the coming months
- Multiple updates in conference rooms
- Increased visitor parking
- Improved wayfinding throughout the complex with increased signage and digital directory signs in all lobbies

We will continue reviewing the survey results to help identify further opportunities to improve your quality of life at NCRC.

To view the Survey Report, [Click Here](#)

This message was sent to mgiesler@umich.edu from:

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