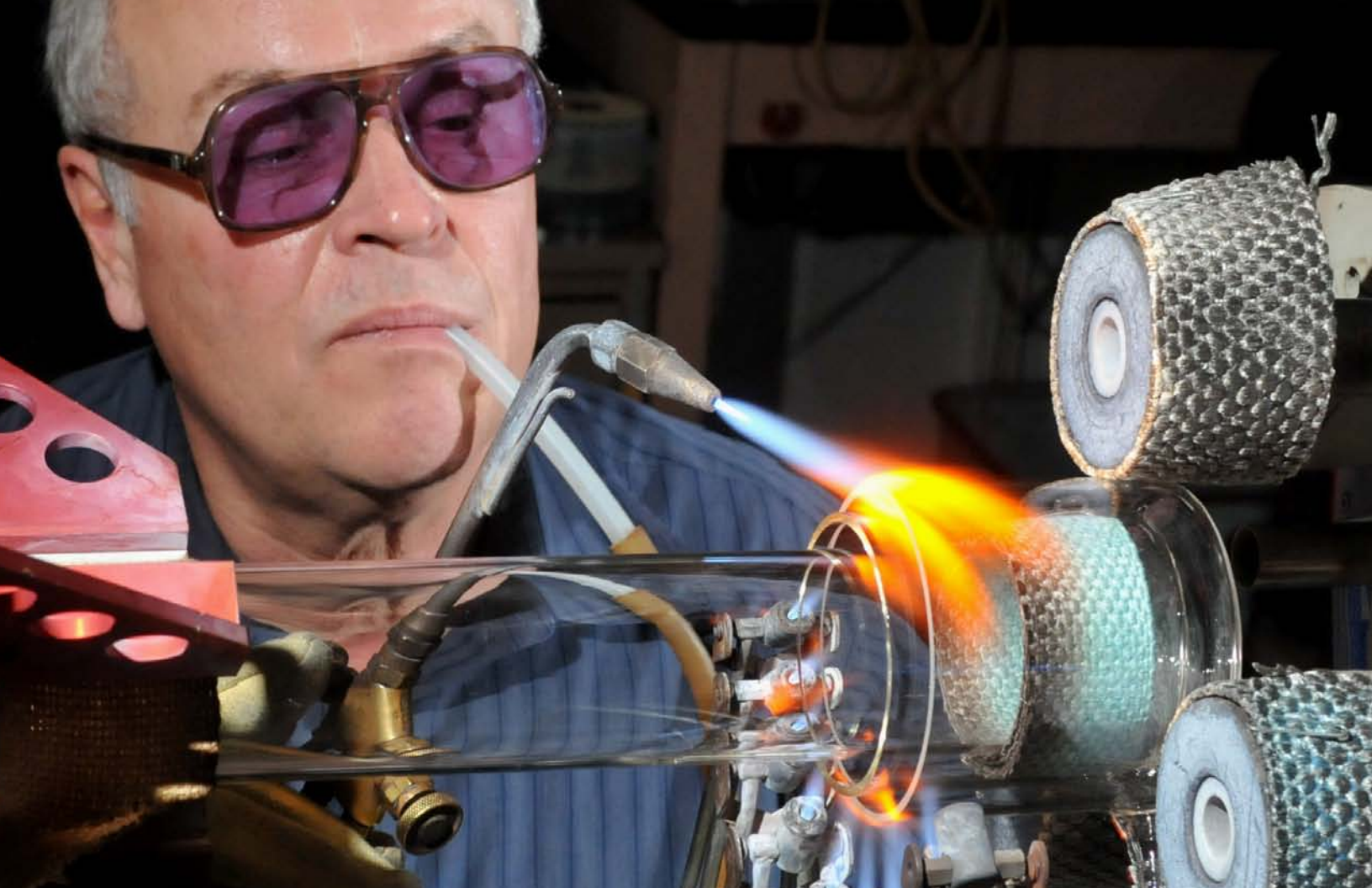


Argonne's **glassblowing** studio is a



C O M M O D I T Y

meeting the diverse needs of Argonne's research community

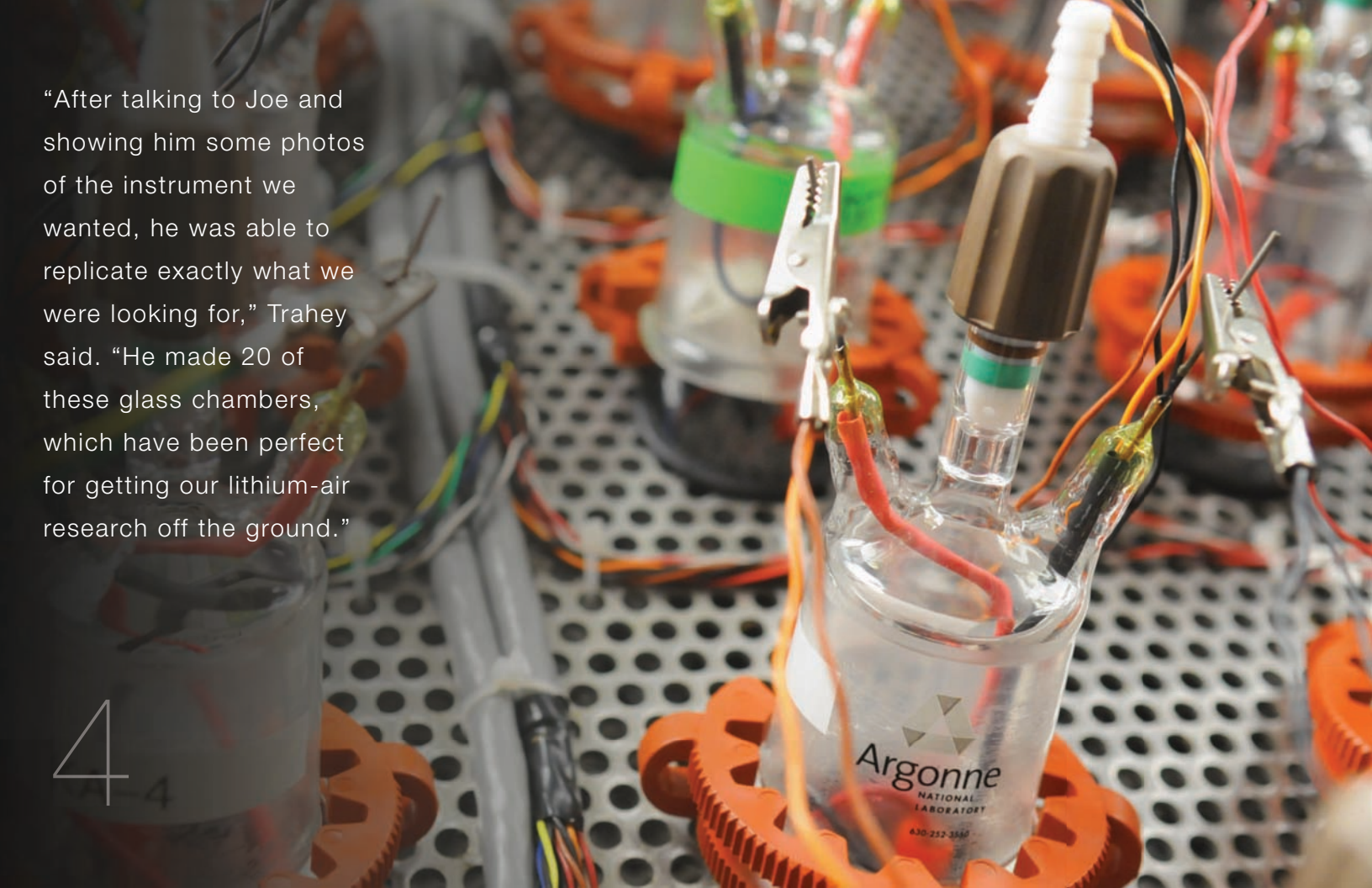


not **your** average **Joe**

Just like the glass instruments he creates, Argonne's glassblower Joe Gregar is one of a kind. With more than 40 years of scientific glassblowing experience, Gregar is capable of making just about anything out of glass. Not only does Gregar know glass, he also understands the unique needs of scientists and engineers.

need a standard lab vessel, custom optical laser cell or repairs to existing equipment?

sure, Gregar can do that!



“After talking to Joe and showing him some photos of the instrument we wanted, he was able to replicate exactly what we were looking for,” Trahey said. “He made 20 of these glass chambers, which have been perfect for getting our lithium-air research off the ground.”

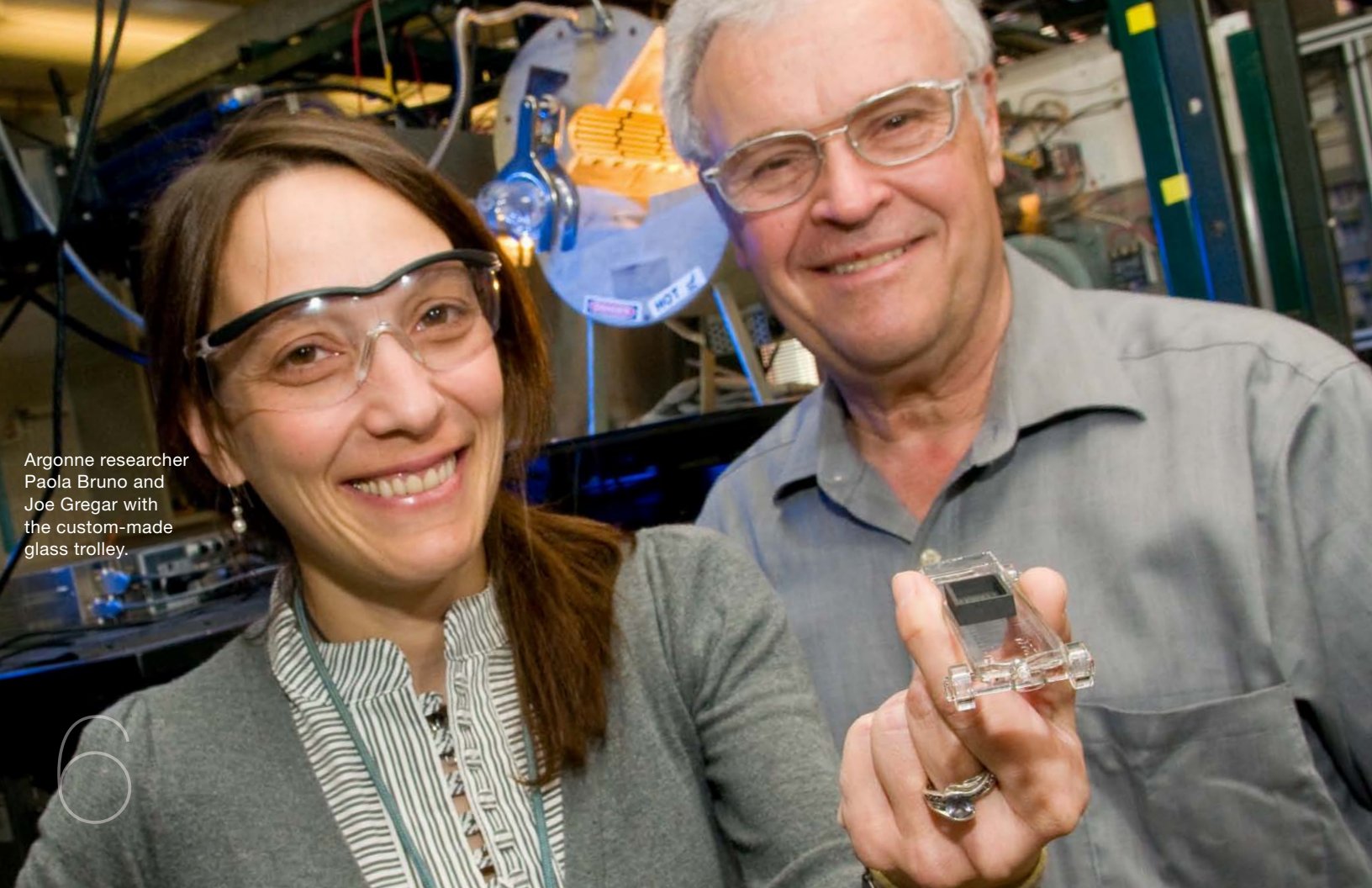
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have something in mind that is not available on the market? **Gregar's your man.**

just ask Argonne researcher **Lynn Trahey**

While on a research visit to the University of St. Andrews in Scotland, Trahey used a glass cell that was very effective for testing lithium-air batteries. When she returned to Argonne, Trahey informed her fellow researchers that the device would be ideal for beginning lithium-air research at the laboratory. She paid Gregar a visit with photos and information on the glass cell and asked if he could create something like it for their studies. After Gregar developed a prototype, the two worked together to tweak the design to meet Trahey's specific research needs.

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Argonne researcher Paola Bruno and Joe Gregar with the custom-made glass trolley.

“Joe is an innovative glassblower who often comes up with clever ways to do things that one would never have imagined could be done with glass,” Gruen said.

Not sure exactly what **you need?** **Gregar can** even **help** with that.

just ask Argonne Distinguished Fellow **Dieter Gruen**

Gruen went to Gregar with a request for a quartz tube to hold graphite crucibles used in solar thermal energy conversion research. The graphite had to be placed in a hot zone, annealed and then pulled back out for testing. But instead of a simple glass tube, Gregar came up with an idea for something far superior. He crafted a glass trolley (glass wheels and all!) that travels back and forth in the tube as needed, holding the crucibles secure and tight. The novel solution made the research process much easier and more efficient for Gruen and his team.



As a fourth-generation glassblower and 30-year Argonne veteran, Gregar brings tremendous knowledge and skill to the lab's in-house studio. Some of his notable achievements include:

Winner of the prestigious R&D 100 award from R&D Magazine in 1999 for being a co-inventor of the Gregar Extractor, a device that extracts chemicals from a solid and places them in a liquid, the form needed for most chemical analyses

Author of more than 70 technical papers on glassblowing

Past president and active member of the American Scientific Glassblowers Society (ASGS)

Longtime teacher of scientific glassblowing

Joe Gregar

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