ACADEMIC RESEARCH COLLABORATION (ARC) PROGRAM

Supporting University Research Worldwide

Microfluidics understands that scientific innovation at the university level is critical to advance novel drugs and products which improve quality of life for patients and consumers worldwide. The major pharmaceutical industry in particular is increasingly reliant on collaborations with academic researchers to perform basic research and develop promising drug candidates using advanced technology and methodologies. With the ARC program, Microfluidics makes cutting-edge nanomaterials processing equipment more accesible for university laboratories, government-funded agencies, teaching hospitals and disease-specific research institutes.

Learn more at www.microfluidicscorp.com/academics.

Innovation Incentives

In addition to delivering exclusive product quality and process efficiency benefits only possible with a Microfluidizer high shear fluid processor, the ARC program offers academic research teams unique values and perks:

- Purchasing incentives for qualified universities
- Complimentary annual "Proof of Concept" testing in the Microfluidics Technology Center
- Extended warranty by one full year
- Bonus referral program
- Upgrade/trade-in credits for certain machines and technologies
- Courtesy "Lunch n' Learn" on-campus seminars
- Preferred rental arrangements where applicable
- Beta site, demonstration and publication opportunities

Partnering for Success

Universities are innovators, partners who use Microfluidizer technology to advance their fields of science. Microfluidics collaborates with leading institutions to promote research by donating equipment and services for specific project goals that advance the usage of nanotechnology in science. Contact us to learn more.

Why Microfluidics?

Microfluidizer high shear fluid processors offer unique advantages that help research teams change the world. Compared to other technologies, Microfluidics users produce the smallest particle sizes with the most uniform distribution and highest product recovery due to the fixed-geometry interaction chamber. Scaleup is guaranteed, and each machine can be used for multiple applications ranging from nanoemulsions and liposomes to cell disruption - perfect for university settings with numerous projects.

Product Spotlight:

The **LV1 low volume** processor brings scalable Microfluidizer-quality nanomaterials processing to samples as small as 1 ml, for the first time enabling universities with limited or expensive resources to benefit from this leading technology efficiently.

Academic Innovation

Hundreds of colleges, universities and research institutes worldwide innovate with Microfluidics technology. Below is a sampling:

- Arizona State
- Barnes Jewish Hospital
- Baylor
- Boston College
- Boston University
- Brigham Young
- Brooklyn College
- Butler University
- Cal State Fullerton
- California Institute of Technology
- California Polytech
- Carnegie Mellon
- Case Western Reserve University
- Catholic University of America
- Central Trinity College
- Children's Hospital of Philadelphia
- Colorado State
- Concordia
- Dartmouth College
- East Tennessee State
- ETH Zurich
- Florida State
- Freie Universitat Berlin
- Friedrich Schiller Universitat
- Harvard Medical School
- Hebrew University of Jerusalem
- Howard Hughes Medical Institute
- Humboldt-University Berlin
- Idaho State
- Indiana University
- Institut Armand-Frappier
- Institut de Biologie Structurale
- Institute for Systems Biology
- Johns Hopkins
- Keck Graduate Institute
- Lehigh University
- Ludwig-Maximilians-Universitat
- Mass College of Pharmacy
- Max Plank Institute
- MD Anderson Cancer Center
- Mercer University
- MIT
- Montana State
- Mount Sinai School of Medicine
- Nanyang TU Singapore
- North Carolina
- Northeastern
- Northwestern
- Nova Southeastern
- Oklahoma State
- Oregon Health Sciences
- Princeton University
- Purdue University
- Queens University
- Rensselaer Polytechnic Institute
- Robert Wood Johnson Medical School
- Rockefeller University
- Ruhr-Universitat Bochum
- Saint Cloud State
- Saint Jude's Children's Research Hospital
- Salk Institute for Biological Studies
- Scripps Research Institute
- St. Louisiana State
- Stellenbosch University
- SUNY
- Swarthmore College
- Syracuse
- Tel Aviv University
- Texas A&M
- Texas Tech
- TU Braunschweig
- TU Dresden
- TU Karlsruhe
- Tufts University
- Tulane University
- UCLA
- Uni Basel
- Uni Frakfurt
- Uni Hannover
- Uni Heidelberg
- Uni Helsinki
- Uni Mainz
- Universitat Bayreuth
- Universitat Freiburg
- University Health Network
- University of Alabama
- University of Alberta
- University of Arizona
- University of Calgary
- University of Chicago
- University of Connecticut
- University of Delaware
- University of Dublin
- University of Florida
- University of Georgia
- University of Glasgow
- University of Idaho
- University of Illinois
- University of Iowa
- University of Kansas
- University of Liverpool
- University of London - School of Pharmacy
- University of Louisiana
- University of Maryland
- University of Massachusetts
- University of Miami
- University of Michigan
- University of Minnesota
- University of Missouri
- University of Montreal
- University of Nebraska
- University of North Carolina
- University of Oklahoma
- University of Oregon
- University of Pittsburgh
- University of Tennessee
- University of Texas
- University of Toronto
- University of Utah
- University of Vermont
- University of Virginia
- University of Washington
- University of Wisconsin
- USC
- UT Southwestern Medical Center
- Utah State
- Virginia Commonwealth University
- Washington University
- Yale University

"As you reduce the particle size of your formulation containing the compound of interest, you increase its surface area, thereby improving bioavailability and efficacy and, as a result, reducing adverse side effects by decreasing the required dose for effectiveness. Microfluidics provides an enabling technology which has allowed us to develop novel properties for pharmaceutical, nutraceutical and cosmeceutical applications."

- Robert Nicolosi, Ph.D.,
University of Massachusetts Lowell

"Partnering with Microfluidics has enabled us to advance exciting new nanotechnology-based methods for drug delivery, for example, to penetrate the blood brain barrier. This is the only technology successful thus far in creating decorated drug nanoparticles which deliver benefits to specific parts of the body and, therefore, accomplish more with less drug."

- Mansoor Amiji, Ph.D.,
Northeastern University

"I have been very pleased with the performance of my Microfluidizer processors for over ten years. In the past, I have tried using French press, ultrasonicator and a homogenizer, but in all cases it took a lot of time, had cooling problems and low rupture rates. The Microfluidizer reduces the energy and number of passes required, while rupturing nearly 100% of the cells and preventing denaturation. This enables me to increase efficiency, avoid using chemical steps and focus more on my fundamental research to produce s-level proteins."

- Johannes Raff, Ph.D.,
Forschungszentrum Dresden-Rossendorf

"I was intrigued by the opportunity to work closely with Microfluidics to develop improved drug fabrication techniques that enhance delivery and efficacy, which pharmaceutical firms will find extremely compelling. This includes producing suspensions with the smallest possible particle size that have been functionalized for specific targeting."

– Robert Fisher, Ph.D.,
MIT