



## COALESCENCE FILTRATION NANOFIBERS CONSORTIUM

George G. Chase  
330.972.7943  
[gchase@uakron.edu](mailto:gchase@uakron.edu)

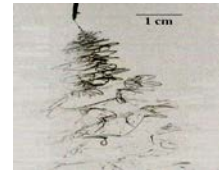
Darrell H. Reneker  
330.972.6949  
[dhr@polymer.uakron.edu](mailto:dhr@polymer.uakron.edu)



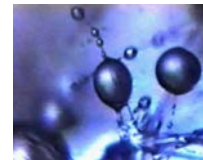
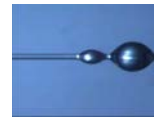
**Mission:** Conduct fundamental research in the performance coalescence filters and design of filter media, including the development and application of nanofibers.

**Scope:** The research scope includes theory, modeling, and experiments on capture and coalescence of micron and nanometer size drops and particles in non-woven filter media made of micron and nanometer diameter fibers; methods of nanofiber generation and construction of non-woven media with nanofibers; liquid-liquid and gas-liquid coalescence.

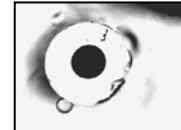
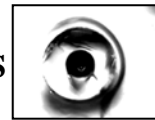
### ELECTROSPUN NANOFIBERS



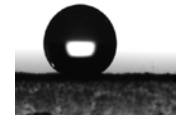
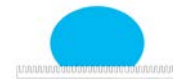
### DROPS ON FIBERS



### SURFACE PROPERTIES



### DROPS ON MATS



### Benefits of Membership:

- Free use of technologies developed for the consortium.
- Royalty-free use of patents by sharing in the cost of the patents on technologies developed for the consortium (The University of Akron is the patent owner).
- Learn about new research results before publication.
- Copies of papers, posters, photos, and videos.
- Advise and guide the direction of the research conducted by students.
- Interact with highly motivated and talented students.
- Meet students as prospective employees.
- Forum for easy access to faculty and students.

### Membership Requirements:

- Annual membership fee = \$19,000 US.
- Start-up fee (for new member access to proprietary technology) \$60,000 US. Start up fee may be spread over 3 years.
- Attend semi-annual meetings for review of the research.

### CURRENT MEMBERS:

Ahlstrom  
Bekaert  
Cummins Filtration  
Donaldson Company  
Hollingsworth & Vose  
Parker Hannifin Corporation