



Arizona Research Laboratories



What biomedical problems or research challenges are being addressed?

- **Cancer**
- **Asthma**
- **Neuroscience**
- **Diabetes**
- **Cardiovascular Disease**
- **Ag Biotech**
- **Environmental Health**

What specific approaches are being taken?

Physiological systems research is being done with organisms from throughout the kingdoms--microbes to humans and everything in between.

What specific approaches are being taken?

- **Biomedical Engineering**
 - BioMEMS**
 - Medical Imaging**
 - Regenerative Medicine**
- **Genome Structure and Function**
 - Integrating genomics, proteomics, metabolomics—targeting cancer, respiratory and heart disease, and genetic improvement of plants**
 - Functional genomics facilities for yeast, fruit fly and mouse**
- **Drug Discovery Initiative**
 - Drug targets for potential disease treatments**
- **Quantitative Biology Consortium**
 - Computational methods to store, access & interpret data**
 - Quantitative & predictive models of biological systems**

What resources, skills, facilities, tools and equipment are being employed?

- **Research foci areas are funded primarily through competitive federal research dollars, including center funds, program project grants, equipment grants, and individual investigator awards.**
- **State funds have been used to seed some equipment purchases and support staff salaries. We use a fee for service model, which recovers partial costs of running the services.**
- **Core facilities funded through ARL, BIO5 and center grants are essential—imaging, biocomputing, genomics, proteomics.**
- **The proteomics consortium is a partnership with ARL, BIO5, SWEHSC, AZCC, and Chemistry.**



UA Mass Spectrometry Consortium
 Co-Directors: **S. Lau Ph.D** and **V. Wysocki Ph.D**
 Sponsors: **ARL, AZCC, BIO5, Chemistry, SWEHSC**

Advisory Committee
TB, Ph.D, GTB, Ph.D, KD, Ph.D, DG, Ph.D, DV, Ph.D

TM, Ph.D – Staff Engineer Senior

Proteomics Facility
 Director: **GT, Ph.D,**
 Assoc. Director: **LB, Ph.D,**
 TBN: Ph.D.

Inorganic Mass Spectrometry
 Geo Science

Molecular Mass Spectrometry
 Old Chemistry
AS, Ph.D, MM, M.S, 2 B.S

BIO5 GATC

ARL Biocomputing

BIO5 Service Core
FH, B.S, AH, B.S, KK, Ph.D

Pharmacy/Chemistry Technology Development
YF, M.S, BL, Ph.D, AH, Ph.D, TBN: M.S

Chemistry User-based Facility
 TBN: B.S

Water Contamination Center
 Gould Simpson

Metabolomics

SWEHSC

Clinical Proteomics

AZCC Analytical Core

- Pending
- Future Initiative
- Future Initiative/In Progress

