



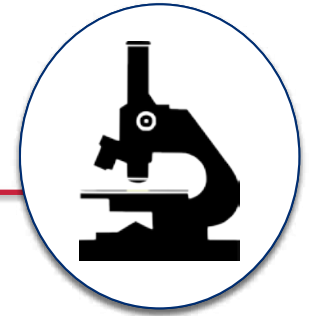
THE UNIVERSITY OF ARIZONA  
HEALTH NETWORK



Department of Pathology  
Presentation to Dr. Garcia

EDUCATION  
September 8, 2014

Presented by Deborah Fuchs, MD and  
Margaret Briehl PhD



# Demographics – Who we teach

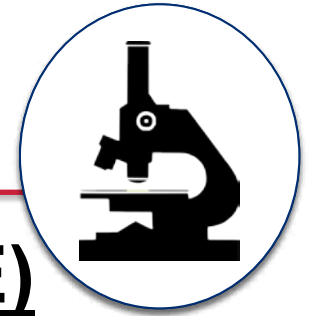
- Undergraduate Medical Education

- AzMed (Years 1-4)
- Post-sophomore fellows

- Post-Graduate Medical Education

- AP/CP Residency
- Fellowships: HP, GI, MGP

- Extradepartmental - Other departments (trainees and faculty) and the community



## Undergraduate Medical Education (UME)

- Years 1 and 2 – Pathology in Organ System Blocks
  - 25 faculty
  - ~115 students/year
- Year 3 - Intersessions
  - Laboratory Medicine Case Studies
  - Autopsy in Clinical Practice
  - Surgical Pathology Hot seat

# ARIZONAMED – CREDIT HOURS

## (2013-14)

Department (Clinical)	Teaching Hours (Y1-Y3)	Other hours (thread director, discipline director, societies mentor, etc.)	TOTAL AZMED HOURS
FCM	592.7	6700	7292.7 (1)
Medicine	894.8	2998	3892.8 (2)
Emergency Medicine	481.5	2862	3343.5 (3)
<b>Pathology</b>	<b>1992.2</b>	<b>605</b>	<b>2597.2 (4)</b>
Pediatrics	454.5	1569	2023.5 (5)
Surgery	599.2	1387	1983.2
Neurology	162.7	694	856.7
Ophthalmology	338	347	685
Psychiatry	133	164	297
OB/GYN	98	--	98
Orthopedic Surgery	30.8	30	60.8
Radiation Oncology	5	--	5



# Undergraduate Medical Education

- Years 3 and 4 – Electives
  - 24 students enrolled for 2014-2015

## - **PATH - Pathology**

PATH-800 - Pathology Research @ The University of Arizona Medical Center - University Campus

PATH-838A - Anatomic Pathology @ Anatomic Pathology- UAMC

PATH-838B - Clinical Pathology

PATH-850A - Anatomic Pathology @ Anatomic Pathology- UAMC

PATH-850B - Clinical Pathology

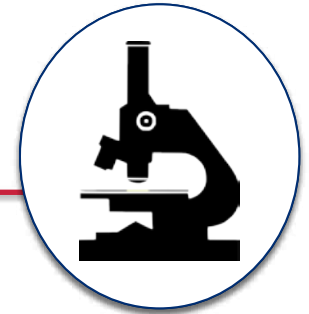
PATH-850C - Special Topics @ The University of Arizona Medical Center - University Campus

PATH-850D - Clinical Practice of Telepathology & Telemedicine @ The University of Arizona Medical Center - University Campus

PATH-850E - Introduction to Forensic Pathology @ Tucson Medical Examiners Office

PATH-891A - Pathology @ Various locations in the United States

PATH-899 - Pathology Independent Study @ The University of Arizona Medical Center - University Campus



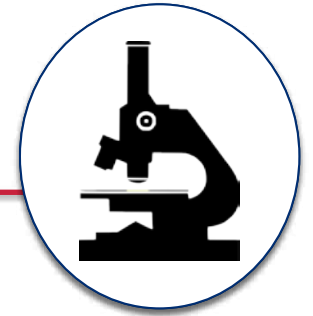
## UME – Highlights: Innovations

### Furrow Award for Excellence in Innovation in Teaching

- Naomi Rance and Nathaniel McMullen
  - Use of digitized microscopic slides
- Erika Bracamonte and Deborah Fuchs
  - Developed novel curriculum
    - Laboratory Medicine Case Studies and Autopsy in Clinical Practice

The Furrow Awards are the primary vehicle for peer recognition of outstanding achievements in education at the COM.



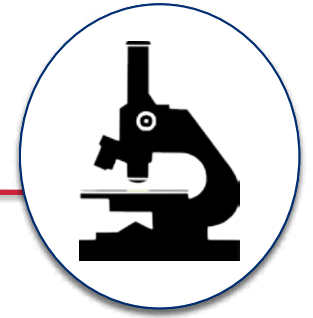


## UME – Highlights

### Post-Sophomore Fellowship



- Started in 1995
- Director: Erika Bracamonte
- 48 Post-Sophomore fellows
  - ~40% enter pathology residency programs (compared to 2% national average for all medical students)



## QUALITY - Teaching awards

### Achyut Bhattacharyya, MD

- Dean's Award for Excellence in Teaching

- 1999, 2003, 2005

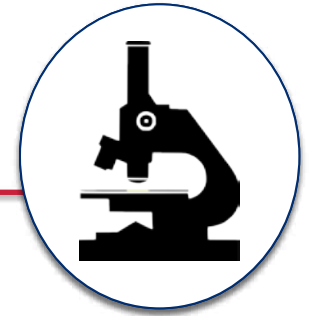
- Basic Science Educator of the Year

- 2001, 2002

- Outstanding Teacher in Basic Sciences

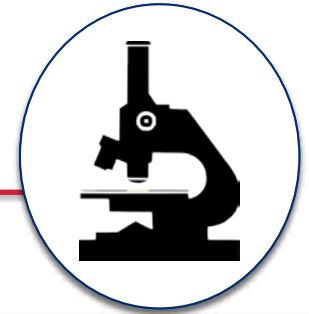
- 2006, 2009





## QUALITY - Teaching awards

- Outstanding Teacher in a Block
  - 2010: Deborah Fuchs
- Dean's List for Excellence in Teaching
  - 2009: Erika Bracamonte, Deborah Fuchs, Donna Wolk, John Carpenter
  - 2010: Erika Bracamonte
  - 2011: Erika Bracamonte
  - 2013: Wenxin Zheng



# QUALITY – Awards

## Basic Science Educators of the Year Lifetime Award

1995 Norman E. Koelling, D Sci  
*Cell Biology & Anatomy*

1997 Ronald S. Weinstein, MD  
*Pathology*

2000 Anna R. Graham, MD  
*Pathology*

2000 Jack Nolte, PhD  
*Cell Biology & Anatomy*

2002 Naomi E. Rance, MD, PhD  
*Pathology*

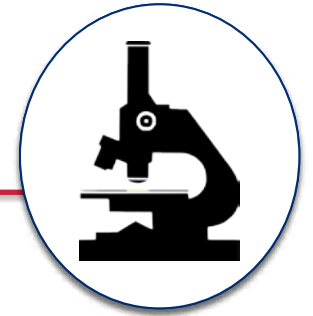
2003 Mark R. Haussler, PhD  
*Biochemistry & Molecular Biophysics*

2005 Marc E. Tischler, PhD  
*Biochemistry & Molecular Biophysics*

2011 Deborah Fuchs, MD  
*Pathology*

Recognizes truly unique faculty members who have made exceptional contributions to medical education and have received the Educator of the Year Award 3 times

4/8



AzMed Years I and II

## Quality Assessed by Student Evaluations

- Evaluations from 22 faculty for AY 2013-14
  - **Average 4.05/5 (3.28 – 4.83)**



## AzMed - Quality Assessed by Student Evaluations

**“All of the pathologists are just wonderful”**

**“Thank you for being such a positive part of my educational experience”**

**“One of the best instructors we have”**

**“Dr. \_\_\_\_ was my favorite this block”**

**“Dr. \_\_\_\_ is a role model – balanced between being brilliant, calm and collected”**

**“The best professor (aside from Dr. \_\_\_\_\_) that we’ve had”**

**“One of UACOM’s best”**

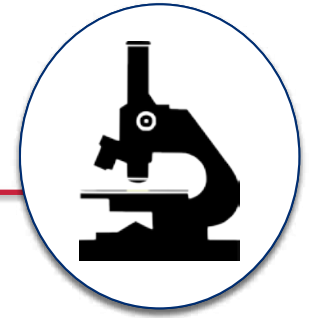
**“Dr. \_\_\_\_ sets the standard”**

**“Favorite professor of the block”**

**“Easily one of the best professors so far”**

**“Favorite instructor of the block”**

**“Dr. \_\_\_\_\_ you are wonderful! I fear you may make a good number of us into pathologists”**



## How do we ensure the quality of UME?

- Chair reviews medical student evaluations of faculty yearly
- Block directors work closely with pathology discipline director and key faculty for each block to provide faculty feedback
- Pathology Instruction Mentorship Program
- Previews for faculty and residents teaching in AzMed labs

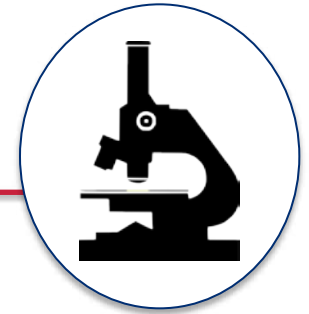


## How do we ensure the quality of UME? Respond to changing times in medical education

- Digitized slides for pathology education
  - Naomi Rance, MD, PhD – Furrow Award for Innovation
- Podcasting reduces lecture attendance
  - Add USMLE board type questions to lectures
  - Make lectures more interactive
- Reduced attendance in Pathology labs
  - Lab keys no longer released to students
  - Shorten previews to slides at beginning of lab → enhance student engagement in lab



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## Pathology Instruction Mentorship Program



- **Goal**: mentor new lecturers in Department of Pathology
- Started in 2013
- 3 mentees as of 8/25/14
- Innovative and QA

# Academy of Medical Education Scholars (AMES)

The mission of the AMES is to mentor and support outstanding educators, and to promote excellence in teaching and educational scholarship at all College of Medicine teaching sites. The Academy of Medical Education Scholars recognizes the College's most outstanding educators and provides a forum for teaching faculty to work together to enhance educational programs.

**The members of the Academy of Medical Education Scholars are:**

**Nafees Ahmad, MD**

Professor, Immunobiology

**Helen A. Amerongen, PhD**

Professor, Cell Biology and Anatomy

**John Bloom, MD**

Professor, Pharmacology and Medicine

**Christopher Cunniff, MD**

Professor, Pediatrics, Pathology, and Obstetrics and Gynecology

**Sean P. Elliott, MD**

Professor, Pediatrics

**Edward D. French, PhD**

Professor, Pharmacology

**Deborah Fuchs, MD**

Assistant Professor, Pathology

**Paul Gordon, MD, MPH, (Chair)**

Professor, Family and Community Medicine

**Kevin F. Moynahan, MD**

Deputy Dean for Education

**John "Jack" Nolte, PhD**

Professor, Cell Biology and Anatomy

**Paul A. St. John, PhD**

Associate Professor, Cellular and Molecular Medicine

**Marc E. Tischler, PhD**

Professor, Biochemistry and Molecular Biophysics

**Todd W. Vanderah, PhD**

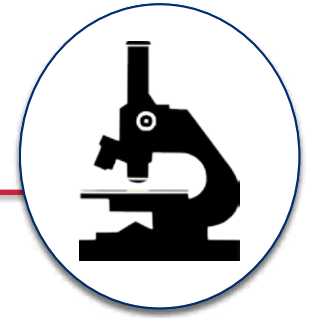
Professor, Pharmacology, Anesthesiology, and Neurology

**Amy L. Waer, MD**

Associate Professor, Surgery

Associate Dean for Medical Student Education





# Demographics – Who we teach

- Undergraduate Medical Education

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- Post-sophomore fellows

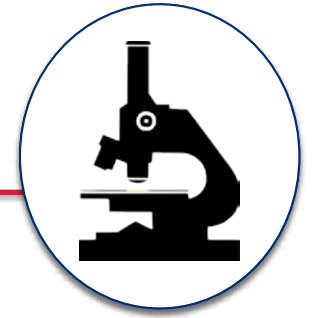
- Post-Graduate Medical Education

- AP/CP Residency
- Fellowships: HP, GI, MGP

- Extradepartmental - Other departments (trainees and faculty) and the community



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## AP / CP Residency program

- Original accreditation date: 7/1/1972
- 4 year program (AP/CP)
- 16 residency positions
- 1/3 to 1/4 are AOA
- 38 graduates from 2004-2014





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## AP / CP Residency program

- Highlights:

- Individual instruction
- Assessment of strengths and needs of each resident
- Graded responsibility
- Faculty dedicated to teaching
- Residents teach in AzMED labs
- Comprehensive core curriculum (AP, CP and MGP)



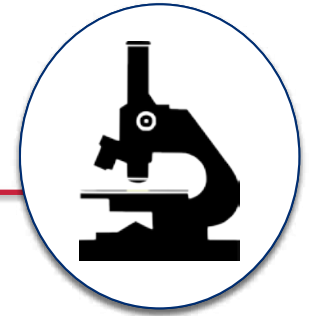


# PATHOLOGY



## RESIDENT/FELLOWSHIP CONFERENCE SCHEDULE SEPTEMBER 2014

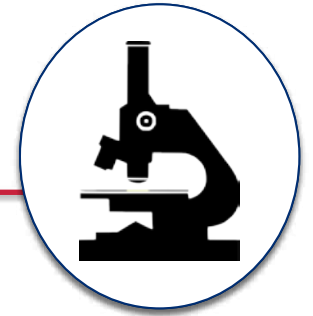
Su	Mon	Tue	Wed	Thu	Fri	Sa	
	1	2 JOURNAL CLUB GYN Pathology -Dr. Mike Flores & Dr. Natalie Whitfield 8:00-9:00am Room 5120	3 AP CORE CONF 8:00 – 9:00 am Room 0303	4 RESIDENT MEETING 8:00 – 9:00 am Room LSN 538	5 AP UNKNOWNNS 8:00 – 9:00am Room 0303	6	
7	8 CP CORE CONF Digital Microscopy in the Hematology Lab -Sandy Kovacs & Staff 8:00 – 9:00 am Room 5120	9 JOURNAL CLUB (Informal) -Dr. Jessica Baumann 8:00-9:00am Room 5120	10 AP CORE CONF Adnexal Tumors -Dr. Fangru Lian 8:00 – 9:00 am Room 0303	11 AUTOPSY CONF 8:00 – 9:00 am Room Morgue	12 AP UNKNOWNNS Adnexal Tumors -Dr. Fangru Lian 8:00 – 9:00 am Room 0303	13	
14	15 CP CORE CONF Hematology Analyzer Case Studies -Julie Pryor & Dawn Robertson 8:00 – 9:00am Room 5120	16 POWER HOUR 8:00 – 9:00 am Room 0303	17 AP CORE CONF Grossing & Signing out GYN Cases -Dr. Wenxin Zheng 8:00 – 9:00 am Room 0303	18 MGP CONF Molecular Methods in Microbiology -Dr. Natalie Whitfield 8:00 – 9:00 am Room 5120	19 AP UNKNOWNNS Grossing & Signing out GYN Cases -Dr. Wenxin Zheng 8:00 – 9:00 am Room 0303	20	
21	22 CP CORE CONF ID of Aerobic Gram Neg Rods, Pseudomonas, related org -Laurel Burnham 8:00 – 9:00 am Room 5120	23 METAL CONF 8:00 – 9:00 am Room 0303	24 AP CORE CONF Pancreas -Dr. Charmi Patel 8:00 – 9:00 am Room 0303	25 AUTOPSY CONF 8:00 – 9:00 am Room Morgue	26 AP UNKNOWNNS Pancreas -Dr. Charmi Patel 8:00 – 9:00 am Room 0303	27	
28	29 CP CORE CONF Instrumentation and Management -Dr. Braun De 8:00 – 9:00 am Room 5120	30	<p><b><u>More Exposure To Awesome Lesions (METAL) Conference</u></b> Resident-driven conference Brandon Larsen, MD, PhD</p>				



# POST-GRADUATE MEDICAL EDUCATION Innovations

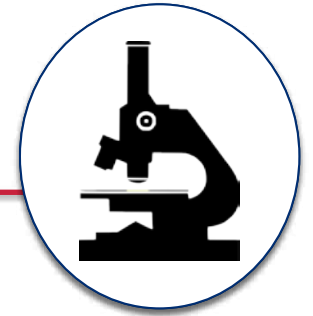
- Leadership Development

- Leaders from 5 COM residency programs and Dave Fleming
- Embed leader-development into residency programs
  - Based on ACGME milestones for professionalism and PBL
- Piloted in 2013, with very positive feedback
- **Goal**: Dept. of Pathology will expand on the pilot program and incorporate into AP/CP curriculum



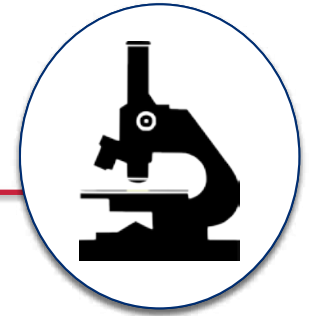
## AP / CP Residency - Outcomes

- Board passage rate
  - First-time takers of ABP (2009-2013)
    - AP: 87% passed (national 84%)
    - CP: 93% passed (national 86%)



## AP / CP RESIDENCY - OUTCOMES

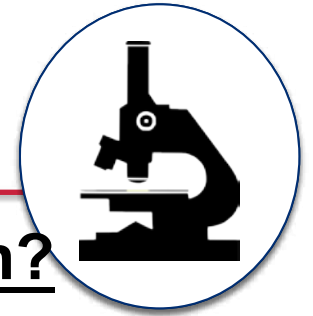
- 2009-2014: 22 graduates
  - Fellowships
    - Dallas SW, Medical Examiner Denver, Johns Hopkins, U Washington, Northwestern
  - Private practice
    - 5 in Arizona
    - 5 out-of-state
  - Academics
    - 3 UAMC Pathology Department
    - 4 out-of-state (Wash U, St. Louis; UT Houston; U of OK; U of Michigan)



## **AP / CP Residency** - Distinguished graduates

- **Dr. Roger Geiss**
  - AP/CP residency in 1981
  - Current: Chairman of Pathology, University of Illinois COM at Peoria
  - Distinguished Teaching Award in Undergraduate Medical Education, Association of Pathology Chairs, 2014
- **Dr. Richard Bernert**
  - AP/CP residency in 1998
  - Current: Arizona Dermatopathology
  - Past Chair of the CAP Political Action Committee
- **Dr. Gilbert Moeckel**
  - AP/CP residency in 1999, Renal/Surg Path Fellowship 2000
  - Current: Associate Professor of Pathology; Director, Renal Pathology and Electron Microscopy Laboratory, Yale School of Medicine





## How do we insure the quality of resident education?

1. Yearly evaluation of our program, attended by all faculty and residents; questionnaire used to evaluate educational issues.
2. Monthly evaluations of pathology faculty and rotation by resident. Reviewed by the Chair and discussed with faculty annually, sooner if a problem is detected.
3. Monthly meeting with all pathology residents and fellows to discuss any problems with resident teaching on a rotation, with a plan of fixing any problem.
4. Personal everyday oversight by the Program Director and Coordinator, and the Residency Committee, particularly the Chief Residents, to detect and fix any problems.



## How do we insure the quality of resident education?

5. Face-to-face meeting of each resident with Program Director twice a year to monitor resident progress
6. Focus group: yearly meeting of residents with a program director of another specialty to voice concerns, make recommendations, etc. Written report is sent to the pathology Program Director and discussed at a monthly GME meeting.
7. Internal review by GME Office of entire pathology residency
8. Annual questionnaire from ACGME filled out by all residents, asking in detail about their training, education, etc. Results are compared with national averages, and the pathology Program Director must submit a written reply to the findings to the GME office, with plans to fix any problems.

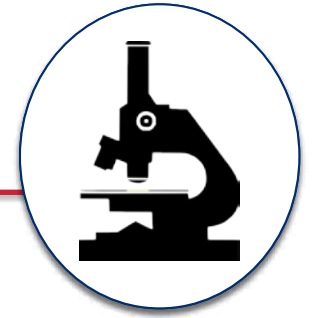


## Post Graduate Medical Education Innovations: Fellowships

- Hematopathology
  - Started in 2004
  - Director: Catherine Spier, MD
  - 100% board pass rate
- Molecular Genetic Pathology
  - Started in 2004
  - Director: Lisa Rimsza, MD
- GI, Liver, Pancreaticobiliary Fellowship
  - Started in 2011
  - Director: Achyut Bhattacharyya, MD

New Fellowship to begin 2016:

**FORENSIC PATHOLOGY**



# Demographics – Who we teach

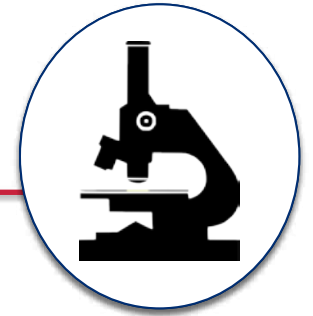
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## Interdepartmental Education

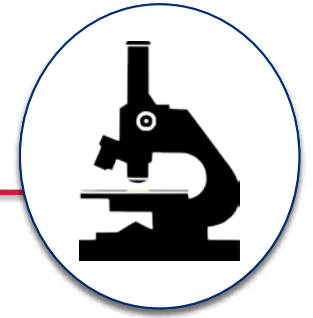
### Case Management Conferences (Tumor Boards)

- General Surgery
- Heme-Onc
- Neuro-Onc
- Gyn-Onc
- Pulmonary
- Pediatric Oncology
- Endocrine
- ENT
- GI (Hepatobiliary, Onc, Colorectal, IBD)
- Bone and Soft Tissue Tumors
- GU
- GYN (Onc, Benign)
- General Surg Path (VA)
- Urology (VA)
- Hematopathology (VA)
- Pulmonary/Neuropath (VA)
- **NEW CONFERENCES:** Benign Hematology and Molecular Tumor Board



## Interdepartmental and Community Education

- Dr. Novak: Anesthesiology, Surgery, Internal Medicine, Pediatrics, Hematology/Oncology, Nursing, OB/GYN, ECMO Physicians,
- Dr. Bracamonte: Nephrology
- Dr. Spier: Nephrology (HLA)
- Dr. Aly: ENT, Dentists in community (outreach)
- Dr. Sobonya: ID, Rheumatology, Cardiology, Pulmonary, and CPCs
- Hematopathology Fellow: Hematology/Oncology
- Dr. Boyer: Entomology, Pediatrics, Mini-Med School, Public Health, FCM, Pharm-Tox, Emergency Medicine, IM, Pharmacology, Peds Critical Care, Chemistry, Biology, Grand Rounds at Community Hospitals



**?? QUESTIONS ??**