

Highlights of ID Fellows' Research



University of Pittsburgh
School of Medicine
Division of Infectious Diseases

Exceptional Training Faculty

- The Infectious Disease faculty are involved in a wide variety of clinical, translational and basic research projects. Descriptions of these individual projects can be found under the Faculty section.



Research Training

- Research (clinical, translational or basic) is emphasized for all ID fellows. During the first year of clinical training, the fellows are encouraged to meet with individual faculty members to identify a mentor and research project that is best suited to their career objectives.

Areas of Research Excellence

- Major research programs include:
 - HIV-AIDS and Global Health
 - Epidemiology of Bacterial Infections
 - Mycology Research
 - Transplant Infectious Diseases

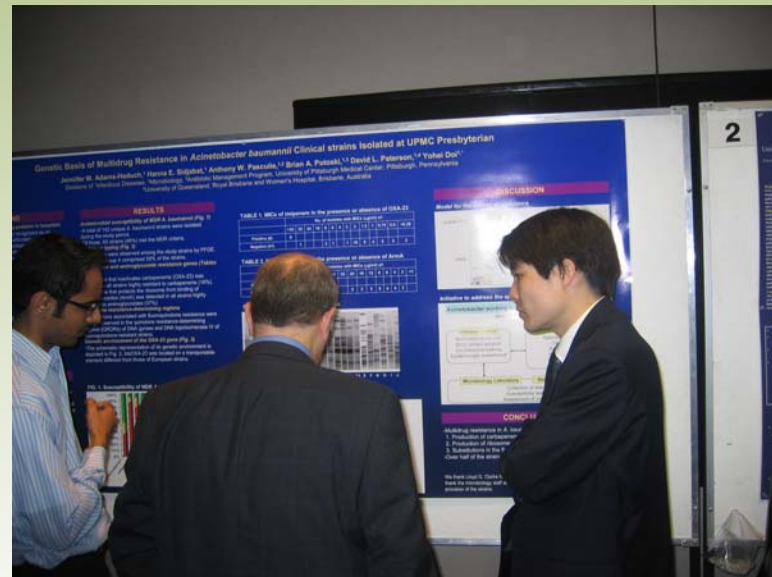
Fellows Research-in-Progress

The fellows give a bi-yearly “Research-in-Progress” report to the ID clinical and research faculty. Constructive feedback is given to promote improvement in research skills.



Fellows Research-in-Progress

In addition to providing constructive feedback, this opportunity enhances the fellow's presentation and assessment skills.



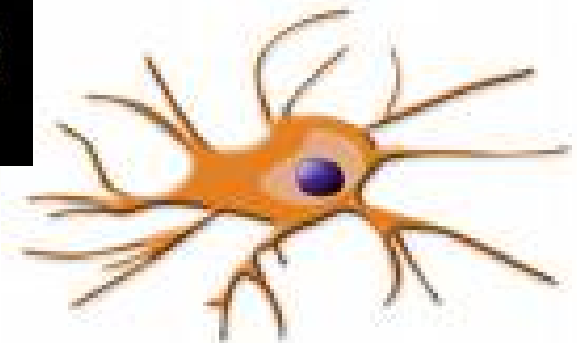
Fellow Research Projects
2008-2009

HIV-AIDS Research

- **Research projects:**
 - Phase I/II Evaluation of Therapeutic Immunization with Autologous Dendritic Cells Pulsed with Autologous, Inactivated HIV-1 Infected, Apoptotic Cells
 - Evaluation of Regulatory T cells in HIV-1 Infected Patients Receiving Immuno-based Therapies
- **Mentors:** Sharon Riddler, M.D., Charles Rinaldo, Ph.D., Theresa Whiteside, Ph.D.



Beej Macatangay, MD
3rd Year ID Fellow

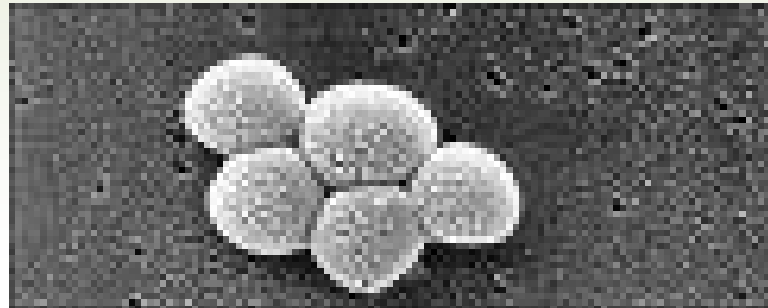


Epidemiology Research/ Infection Control

- **Research Project** - Methicillin Resistant Staphylococcus aureus (MRSA)
 - Risk of Infection in MRSA Colonized Patients
 - Risk Factors for Acquisition, and Differential Antimicrobial Susceptibilities
 - Should add something about state-of-art molecular typing (can talk to Jane)
- **Mentors:** Lee H. Harrison, M.D. and Carlene A. Muto, M.D.



Jo-Anne Salangsang, MD
3rd Year ID Fellow



Surgical Infectious Diseases

- **Research Projects:**
 - Cerebrospinal fluid penetration and pharmacokinetics of vancomycin and daptomycin
 - Diagnosis and management of ventriculo-peritoneal shunt Infection
- **Mentor:** Karin Byers, M.D.

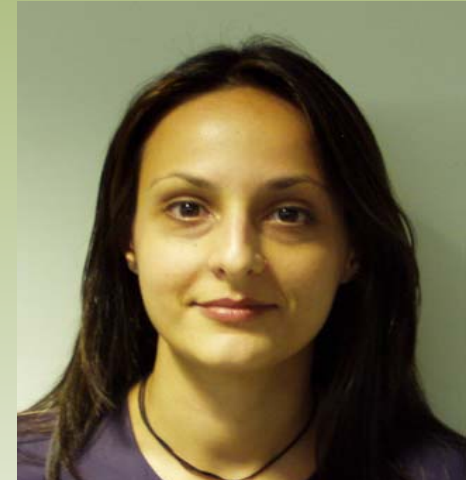


Adarsh Bhimrah, MD
3rd Year ID Fellow



Mycology Research/ Transplant ID

- **Research Project:**
Analysis of Genomic Predisposition to Fungal Infections in Lung Transplant Recipients.
- **Mentor:** Neil Clancy, M.D.



Dimitra Mitsani, MD
2nd Year ID Fellow

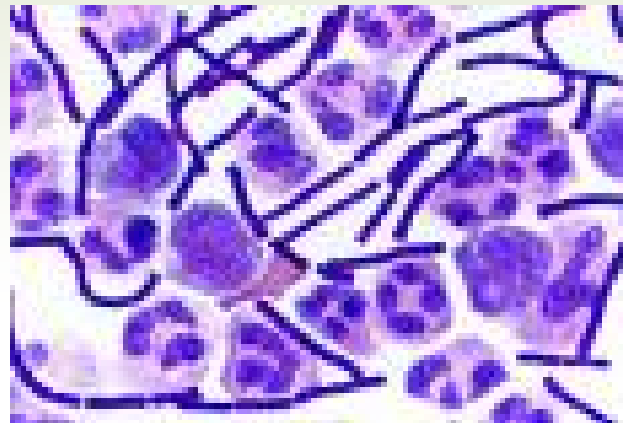


UPCM Center for Biosecurity

- **Research Project:**
Evaluation of degree of hospital preparedness for pandemic/ bioterrorism event.
- **Mentor:** Thomas Inglesby, MD



Amesh Adalja, MD
2nd Year ID Fellow

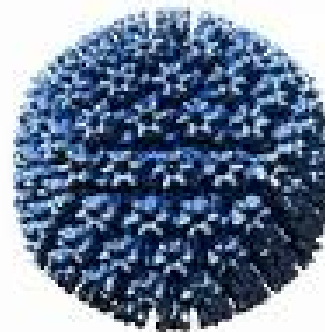


VA ID Section

- **Research Project:**
Prospective,
observational study to
determine the rate of
CMV reactivation in
non-transplant critically
ill patients with sepsis.
- Mentor: Nina Singh,
M.D.



Ryosuke Osawa, MD
2nd Year ID Fellow



Mycology Research/Transplant ID

- **Research Projects:**

- Infectious Complications of Elderly Patients Undergoing Lung Transplantation of Elderly Using Alemtuzamab
- Using a Murine Model to Understand the Pathogenesis of Candida Urinary Tract Infection

- **Mentor:** M. Hong Nguyen M.D.



Aniket Vadnerkar, MD
1st Year ID Fellow



2008 Graduating fellows

Yohei Doi, M.D., Ph.D.

- Assistant Professor of Medicine, University of Pittsburgh
- Research interest: mechanism of antimicrobial resistance among Gram negative bacteria
- 2006 Recipient of Joint Research Award from IDSA/National Foundation for ID
- 2007 First Place All Category winner of the Dept of Medicine Research Day
- NIH K22 award recipient



Yohei Doi, MD PhD
Assistant Professor of Medicine

2008 Graduating fellows

- **Scott Curry, M.D.**
 - Assistant Professor of Medicine, University of Pittsburgh and Director, Infection Control, UPMC Mercy
 - Research interest: molecular epidemiology of *Clostridium difficile*-associated diarrhea



Scott Curry, MD
Assistant Professor of Medicine

2008 Graduating Fellows

Selected 1st Authored Publications

- Curry SR, et al. tcdC genotypes associated with severe TcdC truncation in an epidemic clone and other strains of *Clostridium difficile*. *J Clin Microbiol.* 2007;45:2103
- Doi Y, et al. Coproduction of novel 16S rRNA methylase RmtD and metallo-beta-lactamase SPM-1 in a panresistant *Pseudomonas aeruginosa* isolate from Brazil. *Antimicrob Agents Chemother.* 2007;51:852-6.
- Doi Y, et al. 16S ribosomal RNA methylation: emerging resistance mechanism against aminoglycosides. *Clin Infect Dis.* 2007;45:88-94.

2008 Graduating Fellows

Selected 1st Authored Publications

- Doi Y, et al. High prevalence of metallo-beta-lactamase and 16S rRNA methylase coproduction among imipenem-resistant *Pseudomonas aeruginosa* isolates in Brazil. *Antimicrob Agents Chemother.* 2007;51:3388-90.
- Doi Y, et al. Identification of 16S rRNA methylase-producing *Acinetobacter baumannii* clinical strains in North America. *Antimicrob Agents Chemother.* 2007;51:4209-10.

2008 Graduating Fellows

Selected 1st Authored Publications

- Doi Y, et al. *Escherichia coli* isolate coproducing 16S rRNA Methylase and CTX-M-type extended-spectrum beta-lactamase isolated from an outpatient in the United States. *Antimicrob Agents Chemother.* 2008;52:1204-5.
- Doi Y, et al. Community-acquired extended-spectrum beta-lactamase producers, United States. *Emerg Infect Dis.* 2007;13:1121-3.

2008 Graduating Fellows

Selected 1st Authored Publications

- Doi Y, et al. Characterization of a naturally occurring class D beta-lactamase from *Achromobacter xylosoxidans*. *Antimicrob Agents Chemother.* 2008;52:1952-6.
- Doi Y, et al. Nomenclature of plasmid-mediated 16S rRNA methylases responsible for panaminoglycoside resistance. *Antimicrob Agents Chemother.* 2008;52:2287-8.
- Doi Y, et al. Genetic environment of 16S rRNA methylase gene *rmtD*. *Antimicrob Agents Chemother.* 2008;52:2270-2.

Selected 1st Author Publications from Recent Fellows

- Bhat SV, et al. Failure of current cefepime breakpoints to predict clinical outcomes of bacteremia caused by gram-negative organisms. *Antimicrob Agents Chemother.* 2007;51:4390-5.
- Bhat S, et al. *Pseudomonas aeruginosa* infections in the Intensive Care Unit: can the adequacy of empirical beta-lactam antibiotic therapy be improved? *Int J Antimicrob Agents.* 2007;30:458-62.

Selected 1st Author Publications from Recent Fellows

- Bhat SV, et al. *Scedosporium prolificans* brain abscess in a patient with chronic granulomatous disease: successful combination therapy with voriconazole and terbinafine. *Scand J Infect Dis.* 2007;39:87-90.
- Peleg AY, et al. *Acinetobacter baumannii* bloodstream infection while receiving tigecycline: a cautionary report. *J Antimicrob Chemother.* 2007;59:128-31
- Pelag AY, et al. Risk factors, clinical characteristics, and outcome of *Nocardia* infection in organ transplant recipients: a matched case-control study. *Clin Infect Dis.* 2007;44:1307-14.

Selected 1st Author Publications from Recent Fellows

- Silveira et al. Bloodstream infections in organ transplant recipients receiving alemtuzumab: no evidence of occurrence of organisms typically associated with profound T cell depletion. *J Infect.* 2006;53:241-7.
- Silveira F, et al. Pulmonary fungal infections. *Curr Opin Pulm Med.* 2005;11:242-6.
- Silveira F, Fujitani S, Paterson DL. Antibiotic-resistant infections in the critically ill adult. *Clin Lab Med.* 2004;24:329-41.

Contact Us

Please contact **Kim Barnhart** with questions about the Infectious Diseases Fellowship Program. We appreciate your interest and look forward to receiving your application

Kim Barnhart, M.Ed.

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