

# 7<sup>TH</sup> INTERNATIONAL COCCIDIOIDOMYCOSIS SYMPOSIUM

A Continuing Medical Education Conference Presented by the Division of Infectious Diseases & Geographic Medicine  
Department of Medicine with Infectious Diseases & Geographic Medicine at the Stanford University School of Medicine

**August 10-13, 2017**  
**8:00 AM - 5:30 PM**  
**Li Ka Shing Center for Learning**  
**Palo Alto, CA**



Sponsored by the Stanford University School of Medicine



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Please register early – space is limited • Register online at [cme.stanford.edu/icm](http://cme.stanford.edu/icm)

# Welcome message from the course directors

Dear Colleagues,

It is a pleasure to invite you to the 7th International Coccidioidomycosis Symposium to be held August 10-13, 2017 at Stanford University. The meeting, which takes place approximately once a decade, will bring together experts from the Americas and will present state of the art knowledge about this fascinating disease. Areas covered will include:

- History
- Understanding the fungal life cycle
- Fungal ecology and genomics
- Epidemiology (classical and molecular) and public health
- Occupational health aspects
- Coccidioidomycosis in Latin America
- Veterinary aspects
- Immunity
- Clinical presentation
- Diagnostics
- Management, including review of new IDSA guideline
- Host aspects – including role of immunodeficiencies, as well as genetic and immunosuppressive therapies
- Surgical aspects
- Role of new and promising antifungal agents
- Clinical problem-solving

Space is limited so register early; we look forward to your participation in this meeting.

Sincerely,

**Stan Deresinski, MD**

*Clinical Professor of Medicine  
Stanford University*

**Neil M. Ampel, MD**

*Professor of Medicine  
University of Arizona*

## Faculty

### Course Directors

**Stan Deresinski MD**

*Clinical Professor, Medicine  
Division of Infectious Diseases  
Stanford University  
Course Director*

**Neil M. Ampel, MD**

*Professor of Medicine  
University of Arizona  
Course Co-Director*

### Faculty

**Cody Alcott, DVM, DACVIM**

*Medical Director, Neurology & Neurosurgery  
Veterinary Specialty Center of Tucson*

**Neil M. Ampel, MD**

*Professor of Medicine  
University of Arizona  
Course Co-Director*

**Eduardo G. Arathoon-Peréz, MD**

*Asociación de Salud Integral  
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*Clinical Assistant Professor  
University of Arizona College of Medicine, Phoenix*

**Bridget Barker, PhD**

*Center Director and Assistant Professor  
Northern Arizona Center For Valley Fever Research  
TGen North*

**Janis Blair, MD**

*Professor of Medicine  
Mayo Clinic Arizona*

**Herb Boro, MD**

*Infectious Diseases Clinician  
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*Non-Speaking Convener*

**Cristina Canteros, MD**

*Jefa de Servicio Micosis Profundas  
Departamento Micología  
INEI-ANLIS "Dr Carlos G. Malbrán"  
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**Antonino Catanzaro, MD**

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**Vishnu Chaturvedi, PhD**

*Director of the Microbial Disease Laboratory  
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**Tom Chiller, MD, MPHTM**

*Chief, Mycology Diseases Branch  
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and Environmental Diseases  
National Center for Emerging  
and Infectious Zoonotic Diseases  
Centers for Disease Control and Prevention  
Non-CME Speaker*

**Nancy A. Chow, PhD**

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**Karl V. Clemons, PhD**

*Senior Research Scientist (retired)  
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**Gail Sondermeyer Cooksey, MPH**

*Infectious Diseases Branch  
California Department of Public Health*

**Marie A. de Perio, MD**

*National Institute for Occupational Safety and Health  
Centers for Disease Control and Prevention*

**Stan Deresinski MD**

*Clinical Professor, Medicine  
Division of Infectious Diseases  
Stanford University  
Course Director*

**Autumn P. Davidson, DVM**

*Staff Veterinarian  
School of Veterinary Medicine  
University of California at Davis  
Non-Speaking Convener*

**Dennis M. Dixon, PhD**

*Chief, Bacterial and Mycology Branch  
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National Institute of Allergy and Infectious Diseases  
National Institutes of Health  
Non-CME Speaker*

**David Engelthaler, PhD**

*Director of Programs and Operations  
TGen North*

**Joshua Fierer, MD**

*Professor of Medicine  
University of California at San Diego*

**John N. Galgiani, MD**

*Director, Valley Fever Center for Excellence  
University of Arizona*

**Francesca Geertsma, MD**

*Clinical Associate Professor of Pediatrics  
Stanford University  
Non-Speaking Convener*

**Thomas E. Gryb, PhD**

*Assistant Professor of Laboratory Medicine and  
Pathology  
Mayo Clinic Arizona*

**Susan E. Hoover, MD, PhD**

*Infectious Diseases Specialist  
Stanford Health*

**Amy Hsu, BA**

*Biologist, Laboratory of Clinical Infectious Diseases  
National Institute of Allergy and Infectious Diseases  
(NIAID)  
National Institutes of Health (NIH)*

**Chiung-Yu Hung, PhD**

*Assistant Professor of Research  
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*Chief, Infectious Disease  
Kern Medical*

Please register early – space is limited



**Ken Komatsu, MPH**

Epidemiologist  
Arizona Department of Health Services

**Rafael Laniado-Laborín, MD, MPH**

Clínica de Tuberculosis  
Hospital General de Tijuana, ISESALUD  
Tijuana, Baja California, Mexico

**Rebecca Laws, PhD, MPH**

Epidemic Intelligence Service Officer  
Centers for Disease Control and Prevention  
California Department of Public Health

**James S. Lewis II, PharmD**

Clinical Pharmacist  
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National Center for Emerging and Zoonotic  
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Centers for Disease Control and Prevention

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Clinical Professor of Pediatrics  
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**Orion Z. McCotter, MPH**

Mycotic Diseases Branch  
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National Center for Emerging and Zoonotic Infecti-  
ous Diseases  
Centers for Disease Control and Prevention

**Stephen A. McCurdy, MD, MPH**

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Vice Chair and Professor, Department of Public  
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University of California at Davis

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Internal Medicine, Santa Clara Valley Medical Center

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Zoonotic Disease Epidemiologist  
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**Marc J. Orbach, PhD**

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University of Arizona

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**Thomas F. Patterson, MD, FACP, FIDSA**

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Director, San Antonio Center for Medical Mycology  
The University of Texas Health Science Center at San  
Antonio

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Professor, Department of Medicine  
Autonomous University of Nuevo León  
Nuevo León, Mexico

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School of Social Sciences, Humanities and Arts  
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**David A. Stevens, MD**

Professor of Medicine  
Stanford University

**Rebecca Sunenshine, MD**

Medical Director  
Disease Control Division  
Maricopa County Department of Public Health

**Jane E. Sykes, BVSc (Hons), PhD, DACVIM  
(SAIM)**

Director, Small Animal Clinical Services  
School of Veterinary Medicine  
University of California Davis

**John Taylor, PhD**

Professor of Plant and Microbial Biology  
University of California at Berkeley

**Elitza Theel, PhD**

Assistant Professor of Laboratory and Medicine and  
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**George Thompson III, MD**

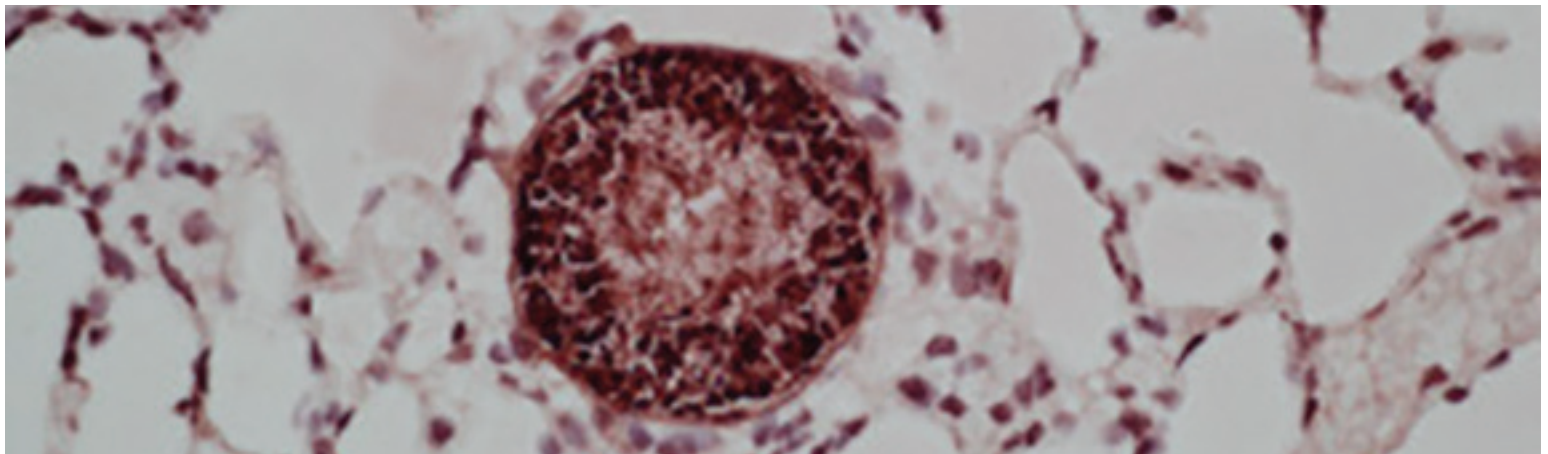
Associate Professor of Medicine  
University of California at Davis

**Jason A. Wilkin, PhD**

Epidemiologist  
California Department of Public Health

**Duc J. Vugia, MD, MPH**

Chief, Infectious Diseases Branch  
California Department of Public Health



# Program (subject to change)

## Thursday – August 10th

8:00 – 9:00 AM **Breakfast and Registration**

9:00 – 11:00 **Workshop 1: Isolation and Identification of Coccidioides from the Soil**

Bridget Barker, Nancy Chow, and Marc Orbach

9:00 – 11:00 **Workshop 2: Clinical Laboratory Safety**

Vishnu Chaturvedi and Karl Clemons

9:00 – 11:00 **Workshop 3: Understanding the Diagnostics of Coccidioidomycosis**

Thomas Gryg, Demosthenes Pappagianis, and Mike Saubolle

11:00 – 12:30 **Lunch**

12:30 – 1:00 **Opening of Conference**

Introduction by Neil M. Ampel

History of Coccidioidomycosis by Stan Deresinski

1:00 – 3:00 **Fungal Ecology & Genomics**

Convener: Bridget Barker

- Coccidioides Population Genomics – Bridget Barker
- Analysis of Soils in Washington State and Oregon – Ana Litvintseva
- Coccidioides in Soil and Rodents in Mexico – Meritxell Riquelme

3:00 – 3:30 **Break**

3:30 – 5:30 **Clinical Presentations of Coccidioidomycosis**

Conveners: Susan Hoover and Rafael Laniado

Panel: Janis Blair, Antonino Catanazaro, John N. Galgiani, Royce Johnson, and Larry Mirels

5:30 PM **Adjourn**

## Friday – August 11th

7:00 – 8:00 AM **Breakfast**

8:00 – 10:00 **Epidemiology and Public Health**

Conveners: Orion McCotter and Rebecca Sunenshine

- Overview of the National Epidemiology – Orion McCotter
- Coccidioidomycosis in Arizona – Ken Komatsu
- Coccidioidomycosis in California – Gail Sondermeyer Cooksey; Duc Vugia
- Coccidioidomycosis in Washington State – Hanna Oltean
- Genomic Epidemiology – David Engelthaler

10:00 – 10:30 **Break and Poster 1 – Viewing**

10:30 – 12:30 **Treatment and Pharmacology**

Convener: George Thompson III

- New Therapies for Coccidioidomycosis – Thomas Patterson
- Pharmacology of Newer Antifungals – James Lewis
- Adverse Effects, Drug Interactions and Dosing Issues – David Nix

12:30 – 1:30 **Lunch and Poster 1 – Viewing**

1:30 – 3:30 **Pediatric Coccidioidomycosis**

Conveners: Francesca Geertsma and James McCarty

- Coccidioidomycosis: Perspective from a Pediatric Pulmonologist – John Moua
- Coccidioidomycosis: The Pediatric Experience in Phoenix, AZ – Wassim Ballan
- Coccidioidomycosis in Children in California – Gail Sondermeyer Cooksey

3:30 – 4:00 **Break and Poster 1 – Viewing**

4:00 – 5:30 **Veterinary Coccidioidomycosis**

Conveners: Autumn Davidson and Lisa Shubitz

- Treatment of Coccidioidomycosis in Dogs and Cats – Lisa Shubitz
- CNS Manifestations of Coccidioidomycosis in Dogs and Cats – Cody Alcott
- Comparative Aspects of Canine and Human Coccidioidomycosis – Jane Sykes

5:30 **Adjourn**

6:00 – 8:30 PM **All Participant Reception**

## Saturday – August 12th

7:00 – 8:00 AM **Breakfast**

8:00 – 10:00 **Coccidioidomycosis in Latin American**

Conveners: Eduardo Arathoon and Rafael Laniado

- Coccidioidomycosis in Mexico – Rafael Laniado-Laborín
- Coccidioidomycosis Research in Mexico – Raquel Muñoz-Salazar
- Coccidioidomycosis and Tuberculosis: Differential Diagnosis – Luis Adrian Rendón-Pérez
- Coccidioidomycosis in Central America – Eduardo Arathoon-Peréz
- Coccidioidomycosis in South America – Cristina Canteros

10:00 – 10:30 **Break and Poster 2 – Viewing**

10:30 – 12:30 **Basic Science**

Convener: Joshua Fierer

- Animal Models of coccidioidomycosis – Joshua Fierer
- Mendelian Mutations and Susceptibility to Coccidioidomycosis – Amy Hsu
- Histoplasma and Coccidioides – Anita Sil
- Determinants of a Vaccine for coccidioidomycosis – Chiung-Yu Hung

12:30 – 1:00 **Lunch**

1:00 – 1:30 **Update from CDC – Tom Chiller**

No CME

**Update from NIH – Dennis Dixon**

No CME

1:30 – 2:30 **Special Lecture – Introduction by Neil M. Ampel**

What is the Life Cycle of Coccidioides? – John Taylor

2:30 – 3:00 **Break and Poster 2 – Viewing**

3:00 – 5:00 **Coccidioidomycosis in Compromised Hosts**

Convener: Janis Blair

- Coccidioidomycosis in Transplant Recipients – Janis Blair
- Coccidioidomycosis in Patients with HIV Infection – Neil M. Ampel
- Coccidioidomycosis in Patients Receiving Biologics – Susan Hoover

5:00 **Adjourn**

7:00 – 9:30 PM **Faculty Dinner and Awards Ceremony**

## Sunday – August 13th

7:30 – 8:30 AM **Breakfast**

8:30 – 10:00 **Occupational Health**

Convener: Marie de Perio

- Occupational Coccidioidomycosis Surveillance – Marie de Perio
- Recent Occupational Coccidioidomycosis Investigations and Education Efforts in California – Jason Wilken
- Occupation and Industry Data in Coccidioidomycosis-Associated Deaths in California – Rebecca Laws
- A Case-Control Study of Coccidioidomycosis Among Hispanic Farm Workers in Kern County, CA – Stephen A. McCurdy
- Knowledge, Attitudes, Beliefs and Behaviors Regarding Coccidioidomycosis Among California Hispanic Farm Workers – Carol Sipan

10:00 – 12:00 **Panel Discussion of the New Coccidioidomycosis Guidelines**

Convener: John Galgiani

Panel: Neil Ampel, Janis Blair, Antonino Catanazaro, Francesca Geertsma, Susan Hoover, Royce Johnson, David Stevens, and Rebecca Sunenshine

12:00 PM **Adjourn**

# Conference Information

## STATEMENT OF NEED

This CME conference seeks to fulfill the need in practicing health care professionals, particularly, physicians, clinical microbiologists, researchers, nurses, nurse practitioners, pharmacists, and veterinarians to improve the fund of knowledge in the prevention and management of coccidioidomycosis. The conference takes place approximately once in a decade, and will cover genomics, ecology, epidemiology, diagnosis, clinical presentation, treatment as well as pediatric and veterinary aspects of coccidioidomycosis, presented by experts in their field. The conference includes lectures with case studies, workshop sessions, panel discussion and an opportunity to engage in Q&A sessions with faculty.

## TARGET AUDIENCE

This is an international program, designed for:

- Health care professionals specializing in prevention and management of Coccidioidomycosis
- Physicians in all specialties
- Clinical Microbiologists
- Researchers
- Registered Nurses
- Nurse Practitioners
- Pharmacists
- Veterinarians

## LEARNING OBJECTIVES

At the conclusion of this activity, learners will be able to:

- Define the sites where coccidioides may be found in the environment
- Recognize the genomic tests for speciation and identification of coccidioidomycosis causative agents
- Discuss the recent increases in coccidioidomycosis in certain geographic areas
- Describe environmental risk factors for acquiring coccidioidomycosis

- Identify patient risk factors for increased severity for coccidioidomycosis
- Evaluate the various tests to diagnose and monitor coccidioidomycosis and select the best method for your patient
- Manage patients with coccidioidomycosis by recognizing how therapy may differ among various patient risk groups and taking in account the available antifungal agents and their use
- Discuss how certain immune deficits and mutations are related to increased severity of coccidioidomycosis
- Recognize how coccidioides may be pathogen rather than saprophyte

## ACCREDITATION

The Stanford University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

## CREDIT DESIGNATION

The Stanford University School of Medicine designates this live activity for a maximum of **24.50 AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The California Board of Registered Nursing recognizes that Continuing Medical Education (CME) is acceptable for meeting RN continuing education requirements; as long as the course is certified for **AMA PRA Category 1 Credit™ (rn.ca.gov)**. Nurses will receive a Certificate of Participation following this activity that may be used for license renewal.

## COMMERCIAL SUPPORT ACKNOWLEDGEMENT

This CME activity is supported in part by educational grants. A complete list of commercial supporters will be published in the course syllabus.

# Registration

## REGISTRATION

Registration fee includes course materials, certificate of participation, breakfast, lunch, and conference materials.

Register online with a Visa or Master Card by visiting [cme.stanford.edu/icm](http://cme.stanford.edu/icm). If you prefer to pay by check or need assistance, please call **(650) 497-8554** or email [stanfordcme@stanford.edu](mailto:stanfordcme@stanford.edu). Be sure to register with an email address that you check frequently. Your email address is used for critical information, including registration confirmation, evaluation, and certificate.

### ATTENDEE TYPE

Physician/NP/RN  
All Others

### FEES

\$475  
\$225

## CANCELLATION POLICY

Cancellations received in writing no less than 30 days before the course will be refunded, less a 20% administrative fee. No refunds will be made on cancellations received after that date. Please send cancellation requests to [stanfordcme@stanford.edu](mailto:stanfordcme@stanford.edu).

Stanford University School of Medicine reserves the right to cancel this program; in the event of cancellation, course fees will be fully refunded.

## CONFERENCE LOCATION

### Li Ka Shing Center for Learning and Knowledge

291 Campus Drive, 2nd Floor Conference Center  
Stanford, California 94305  
[conferencecenter.stanford.edu](http://conferencecenter.stanford.edu)

## ACCOMMODATIONS

### Sheraton Palo Alto

615 El Camino Real, Palo Alto, 650-328-2800  
Reference "ICM2017" when booking. Book by 7/10.

Traditional King or 2 Doubles: 8/9-8/10 – \$349/night (+ taxes)  
8/11-8/12 – \$129/night (+ taxes)

### Cardinal Hotel

235 Hamilton Avenue, Palo Alto, 650-323-5101

Reference "International Coccidioidomycosis Meeting (ICM)" when booking.  
Book by 7/10.

Queen, 2 Double, King, and Deluxe King: 8/9-8/10 – \$279-\$319/night (+ taxes)  
8/11-8/12 – \$159-\$189/night (+ taxes)

### Stanford Guest House

2575 Sand Hill Road, Menlo Park, 650-926-2800

Reference "ICM2017" when booking. Book by 6/10.

Standard Queen 8/9-8/12 – \$155/night

## VISITOR INFORMATION

The Stanford campus offers a wealth of sightseeing and educational opportunities for tourists and first-time visitors. Learn more at [visit.stanford.edu](http://visit.stanford.edu).

## CONTACT INFORMATION

For questions about the symposium, please contact **Yolanda Cervantes**, CME Conference Coordinator, **(650) 724-9549** or email [ycervant@stanford.edu](mailto:ycervant@stanford.edu)

### Stanford Center for Continuing Medical Education

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Please register early – space is limited • Register online at [cme.stanford.edu/icm](http://cme.stanford.edu/icm)