



The University of Arizona

## Shrimp Pathology Short Course

**Disease Diagnosis and Control in Marine Shrimp Culture**

**July 14 – 25, 2008**

Sponsored by The University of Arizona Department of Veterinary Science and Microbiology and in cooperation with the USDA Marine Shrimp Farming Program.

**Registration Information:** Registration is limited to 30.

**Deposit and Early Registration Deadline:** \$100 (USD) by May 1, 2008.

**To Apply:** Complete the application form indicating how you will be paying your \$100 deposit (Bank draft, Mastercard & Visa accepted) and send the form by mail, FAX or email.

**Mailing address:**

The University of Arizona  
Department of Veterinary Science & Microbiology  
Aquaculture Pathology Laboratory  
1117 E. Lowell Street, Room 102  
Tucson, Arizona 85721 USA  
FAX: 520-621-4899  
Email: [ritar@email.arizona.edu](mailto:ritar@email.arizona.edu) or [dvl@email.arizona.edu](mailto:dvl@email.arizona.edu)

**Cost:**

\$1,500 (USD) if deposit received by May 1, 2008.

\$2,000 (USD) if deposit received after May 1, 2008.

**Note:** The University of Arizona reserves the right to cancel the course if participant pre-enrollment is less than 10 by June 9, 2008. All deposits will be refunded if the course is cancelled. Deposit will be refunded if participant's cancellation is received by June 9th. After June 10<sup>th</sup>, participant's deposit will not be refunded. No exceptions.

**Accommodations:**

Both single and double rooms are available at the nearby Sheraton Four Points Hotel for \$59 per night (does not include taxes) per room. On campus dormitory rooms are also available for \$25 per night for a single room and \$21 per night per person for a double room.

**International Travelers:**

Due to more stringent U.S. entry requirements, **allow a minimum of 4-6 months for visa processing.**

## Program

**Lectures:** At least two lectures are scheduled each day. The following topics will be covered:

1. Course introduction, purpose, scope and schedule.
2. Introduction to gross anatomy and normal histology.
3. White Spot Disease (WSSV).
4. The baculovirus and baculo-like virus disease including MBV, BP and BMN.
5. Infectious hypodermal and hematopoietic necrosis virus, hepatopancreatic virus and other parvovirus caused diseases.
6. Taura syndrome, Infectious myonecrosis, Yellowhead and other RNA virus caused diseases.
7. Bacterial, rickettsial and fungal diseases.
8. Surface fouling diseases.
9. Nutritional diseases.
10. Toxic and environmental disease syndromes.
11. Diseases of unknown or uncertain etiologies.
12. Parasitic diseases.
13. Methods of disease prevention and/or treatment.
14. New diagnostic procedures.

**Labs and Demonstrations:** Two lab sessions per day. Topics to be covered in the labs include:

1. Fixation procedures for routine histology.
2. Standard histological techniques.
3. Normal histology and post-mortem change of principal organs and tissues.
4. Wet mount diagnostic procedures.
5. PCR/RT-PCR and gene probes for diagnosis of viral diseases.
6. Antibody-based methods for diagnosis of viral diseases.
7. Isolation, culture, identification and antibiotic sensitivity of bacterial isolates.
8. Histopathology of viral, bacterial, rickettsial, fouling, parasitic, toxic and nutritional diseases.

### University Graduate Course Credit:

Three graduate credits are available for VSC565 through The University of Arizona Summer Session. For more information concerning University graduate studies application forms, enrollment fees and late fee deadlines, contact Rita Redman or Dr. Don Lightner at The University of Arizona: office phone - (520) 621-8414 or e-mail: [ritar@email.arizona.edu](mailto:ritar@email.arizona.edu) or [dvl@email.arizona.edu](mailto:dvl@email.arizona.edu).

### Lectures, Labs and Demonstrations:

By Staff from the Department of Veterinary Science and Microbiology  
D.V. Lightner, Ph.D.: Professor, Specialist in diseases of cultured shrimp  
C.R. Pantoja, Ph.D.: Associate Research Professor, Shrimp Pathologist  
K.Tang-Nelson, Ph.D.: Associate Research Professor, Molecular Virologist  
B.T. Poulos, Ph.C.: Immunologist, Molecular Biologist  
L.L. Mohny, M.S.: Microbiologist  
S.A. Navarro, B.S.: PCR techniques, Microbiologist  
R.M. Redman, H.T.: Histotechnologist

### Need more information?

Contact Rita Redman or Dr. Don Lightner:  
The University of Arizona  
Department of Veterinary Science & Microbiology  
Aquaculture Pathology Laboratory  
1117 E. Lowell Street, Room 102  
Tucson, Arizona 85721 USA  
Phone: 520-621-8414; FAX: 520-621-4899  
Email: [ritar@email.arizona.edu](mailto:ritar@email.arizona.edu) or [dvl@email.arizona.edu](mailto:dvl@email.arizona.edu)

To apply, please fill out the following application form and send the form by mail, FAX or e-mail.

**The University of Arizona  
2008 Shrimp Pathology Short Course  
Application Form**

Name and Title:

Academic Degrees:  B.S.  M.S.  Ph.D  DVM  Other

Field(s) of Study:

Institution/ Company Name:

Address:

City

State

Country

Postal Code

Telephone number:

FAX number:

E-mail address:

**Important: Please provide your FAX number and/or e-mail address.**

Lodging preference:  Sheraton Four Points  Dormitory  Other

Arrival date:

Departure date:

Will you be taking course VSC565 for graduate credit?  Yes  No

**Application deposit of \$100 (USD) must be received by May 1, 2008 to receive discount on Shrimp Pathology Shortcourse fees.**

Check enclosed made payable to The University of Arizona  Yes  No

Credit Cards accepted:  MasterCard  Visa

Card number

Security code

Expiration date

Signature:

Fill out application form and send by email, mail or FAX to:

The University of Arizona

Department of Veterinary Science & Microbiology

1117 E. Lowell Street, Rm. 102

Tucson, Arizona 85721, USA

FAX: 520-621-4899

Rita Redman or Dr. Don Lightner - email: [ritar@u.arizona.edu](mailto:ritar@u.arizona.edu) / [dvl@email.arizona.edu](mailto:dvl@email.arizona.edu)