David L Nieland

Subject: Postdoc in Vector-borne disease and disease mapping

The Companion Animal Parasite Council (CAPC http://www.capcvet.org) is currently seeking a postdoctoral fellow for the newly created, two-year **Boehringer Ingelheim Vetmedica, Inc. - CAPC Infectious Disease Postdoctoral Fellowship**. The postdoctoral fellow will work with the mathematical modelers Drs. Robert Lund and Christopher McMahan at Clemson University and parasitologist Dr. Michael Yabsley at The University of Georgia. The role of this post-doc in our organization is to oversee, advance, and communicate CAPC vector-borne disease modeling and forecasting efforts, including Lyme, Ehrlichiosis, Heartworm, Anaplasmosis, and other diseases related to companion animal health.

Overview:
This two-year post-doc fellowship is intended to extend, refine, and enhance professional and career development skills in veterinary infectious disease modeling and will enable the fellow to broaden his/her scientific background via new research capabilities. Competitive candidates will have a record of scholarship; applicants with experience in the mathematical modeling of infectious diseases and/or the statistical analysis of large datasets (big data) are especially desired. The postdoctoral fellow is expected to have a strong understanding of vector-borne disease, either from the perspective of medical practice (DVM) or basic science research (PhD). Ideal candidates will have some statistics and modeling experience and an interest in infectious disease modeling. Applicants with a background in the mathematical modeling of infectious diseases and/or population biology are strongly encouraged to apply.

The postdoctoral fellow will conduct independent scholarly research related to CAPC's disease/pathogen forecasting project and disease mapping, participate in project planning, the procurement of new disease data, its digitization, assessment of its reliability, the statistical analysis of the procured data, and the interpretation and communication of any findings. Journal publications and presentations at national meetings are important components of this position. The fellow will be part of a disease mapping team containing other junior lab members at Clemson University and/or The University of Georgia.

Specifically, this fellow will:

1. Refine the proprietary CAPC forecasts, with emphasis on increasing automation and computational speed of the current United States algorithm.
2. Initiate research to quantify the effect of preventative immunization on the regional control of Lyme disease.
3. Speak at national veterinary meetings with the goal of providing continuing education regarding parasite prevention and use of CAPC forecast maps as a tool for veterinarians to become the local expert in parasite control.
4. Help quantify changes in the prevalence and geographic distribution of Lyme disease and other tick-borne diseases.

DESIRED EDUCATION AND EXPERIENCE:

- Medical background (DVM) preferred; experience in animal health and vector ecology are similarly applicable.
- MPH, MS or PhD in computational biology, computational science, statistics, mathematics, or related fields
- Strong general understanding of infectious disease and parasites
- Exhibited knowledge of statistics, probability, and mathematical modeling

SKILLS AND ABILITIES:

- **Excellent communication/interpersonal skills**
- **Strong research skills**
- Values research integrity and collaborative research
- Effective problem solving/critical thinking skills
- Ability to work independently
- Ability to exercise discretion and good judgment
- High level of motivation

This is a two-year commitment with a required employment contract.

Enquiries about this position should contact Dr. Shila Nordone shilanordone.ahc@gmail.com or (919) 539-9583

Qualified candidates should send a CV, a statement of research interests, and the names of three references to shilanordone.ahc@gmail.com. Short-listed candidates will be asked to provide writing samples.