Okinawa Institute of Science and Technology

(Title)

The Okinawa Institute of Science and Technology Graduate University (OIST) is a model for change in education and research with the best international graduate students, working side by side with world-class faculty in modern well-equipped laboratories. Beautifully situated on the island of Okinawa, OIST relies on a cross-disciplinary approach, with an emphasis on creativity and exchange, to offer unique, individualized graduate training. OIST is a university with no departments, eliminating artificial barriers between people working in different fields, but many nationalities, with students and faculty being attracted from all over the world. Concentrating initially on Neuroscience, Molecular Sciences, Mathematical Sciences, Environmental and Ecological Sciences and Physical Sciences, OIST is bringing some of the best brains in the world to Okinawa to transform the way science and education is done in the global academic world.

Position summary:

The Evolutionary Genomics Unit is seeking for a postdoctoral researcher with background in ecology and evolution, and with ability to analyze high throughput sequencing data. The researcher will work around on one or more of these promising topics: molecular evolution of the symbiosis between insects and microorganisms, molecular phylogenetic of insects and their microorganisms, historical biogeography of termites.

Position:

The Evolutionary Genomics Unit is a research group recently established at OIST with interests in evolution of insects in general. Our main research topics include molecular evolution of the symbiosis between insects and microorganisms, molecular phylogenetic of insects and historical biogeography of termites. We address all these themes using high throughput sequencing. OIST possesses cutting edge sequencing facilities, equipped with high throughput sequencing, including Illumina Hiseq 2500, Hiseq 4000, Miseq, and PacBio. We are looking for a postdoctoral candidate with extensive experience in high throughput sequencing and who is keen to work on one of our insect models: cockroaches or termites. The candidate is expected to work in collaboration with members of the Evolutionary Genomics Unit, and she/he will be given relative independence to develop her/his own research within the frame of the Unit's research agenda.

Some possible research topics include, but are not restricted to:

- Studying the role of termite gut microorganisms in soil-feeding termites using metagenomic analyses. Many species of termites feed on soil but they are not studied as intensively as wood-feeding termites. Metagenomics can help us understanding the function of these microorganisms.
- Studying the evolution of genome reduction in the cockroach endosymbiont *Blattabacterium*. Most cockroaches are associated with *Blattabacterium*, a bacterium that recycles nitrogen wastes and provides amino acid to their host. The number of genes varies between strains of *Blattabacterium*, and one question is therefore what are the factors responsible of gene erosion in some strains?
- Studying the historical biogeography of termites using molecular phylogenies. Termites are distributed worldwide and often make up a large part of animal biomass in the tropics. We are studying the origin of their distribution using mitochondrial genome phylogenies, to determine the timing and direction of their spread across the globe.
- Studying the coevolution between termites and their microorganisms. The gut of termites host 1000s of bacterial species participating to the degradation of wood and other organic compounds. Gut bacteria are inherited from parents, or are acquired by transfer from other sources. We aim to determine the respective role of vertical inheritance versus horizontal transfer in shaping the termite gut bacterial communities.

Working Location:

Onna-son, Okinawa, Japan

Responsibilities:

1. Carrying out lab experiments
2. Data analysis
3. Writing papers
4. And possibly carrying out fieldwork

Qualifications:

(Required)

1. Ph.D. in Biological Science, with relevant research experience
2. Proficiency in written and spoken English
3. Good track record of publications
4. Ability to analyze high throughput sequencing data
5. Highly motivated and with strong social skills

(Preferred)

1. Previous fieldwork experience, especially of insect sampling
2. Experience with insect breeding

Term:

Full-time, fixed term appointment for 1 year, with possibility of renewal for up to a total of 3 years.

Working hours:

9:00-17:30 (Discretionary)

Compensation:

In accordance with the OIST Employee Compensation Regulations

Benefits:

- Relocation, housing and commuting allowances
- Annual paid leave and summer holidays
- Health insurance (Private School Mutual Aid http://www.shigakukyosai.jp/), welfare pension insurance (kousei-nenkin), worker's accident compensation insurance (roudousha-saigai-hoshou-hoken)

Submission Documents:

- Cover letter in English
- Curriculum vitae in English, including a list of publications
- Names and contact information of 3~5 referees, one of which should be a previous employer

* Please be sure to indicate where you first saw the job advertisement.

Starting Date:

Nov-Dec, 2017, negotiable

Application Due Date:

Applications deadline will continue until the position is filled.

Application Address:

Please submit all required application materials by email to:

thomas.bourguignon#oist.jp

(Please replace # with @ before using this email address)

* OIST Graduate University is an equal opportunity, affirmative action educator and employer and is committed to increasing the diversity of its faculty, students and staff. The University strongly encourages women and minority candidates to apply.
* Information provided by applicants or references will be kept confidential, documents will not be returned. All applicants will be notified regarding the status of their applications.
* Please view our policy for rules on external professional activities (https://groups.oist.jp/acd/information-disclosure/).
* Further details about the University can be viewed on our website (www.oist.jp).