

Cambridge Healthtech Institute & International Center for Integrative Systems present

Molecular & Cellular Mechanisms of Traditional Systems of Medicine

Strategies to Conduct Convergent Research on Traditional Medicines and Systems Biology from Cellular to Molecular Mechanisms

November 1, 2010

12:00 pm – 6:30 pm

**World Trade Center
Boston**

SUMMARY

Workshop Motivation:

The purpose of this workshop is two fold: to provide an intensive background of Traditional Systems of Medicines (TSM) e.g. Siddha, Ayurveda, Traditional Chinese Medicine, etc. and Modern Systems Biology, and to review in depth the concrete problems and opportunities in pursuing convergent research across both of these systems. The International Center for Integrative Systems develops research programs, curriculum and events to explore the integration of Traditional Medicines Systems with Modern Systems Biology. This workshop represents a condensed curriculum of the Center's course, offered in a 13-week period.

For thousands of years, traditional systems of medicine have employed modalities such as herbs, movement, sound, meditation, and other therapeutic approaches. These traditional systems have been developed across many cultures: Indian, Chinese, Native American, Korean, African, to name a few. Thousands of individual treatments exist across all of these systems, whose benefits have been reported. The public in the United States alone has begun adopting nutraceuticals (herbs and vitamins) and alternative and complementary therapies (yoga, massage, acupuncture, meditation, etc.). Currently, it is estimated that Americans spend \$60 Billion annually, which is growing at 30% per year.

While the growth of the use of these therapies is significant, from a modern and Western perspective, the biological principles and molecular and cellular mechanisms underlying these modalities are not well understood. Recognizing this, National Institutes of Health (NIH) Office of Dietary Supplements and National Center for Complementary and Alternative Medicine (NCCAM) now supports basic and clinical research programs to verify health claims and to determine the molecular and cellular mechanistic basis of these modalities.

This workshop will offer attendees the opportunity to: 1) acquire a deeper understanding of the nature of these traditional systems of medicine (TSM) and 2) understand the modern biological engineering approaches being now employed to investigate the molecular and cellular mechanisms of these modalities

WORKSHOP LEADERS

Dr. V.A. Shiva Ayyadurai, Ph.D., M.I.T. Department of Biological Engineering &

International Center for Integrative Systems.

Dr. Andrew Ahn, M.D., MPH, Beth Israel Deaconess Medical Center.

Dr. C. Forbes Dewey, Jr., Ph.D., FEng. M.I.T. Department of Biological Engineering &

M.I.T. Department of Mechanical Engineering

Sen Song, Ph.D., Tsinghua University, China

Sourav Bhowmick, Ph.D., National Technological University, Singapore



WORKSHOP ORGANIZATION

This workshop is composed of three (3) parts:

- **Part I** – Traditional Systems of Medicine (TSM) & Systems Biology
- **Part II** – Biological Engineering Approaches to Evaluate TSM
- **Part III** – Policies and Issues in Executing Integrative Research

WHO SHOULD ATTEND

If you are working in or have a vested interest in the following topic areas:

- Systems Biology
- Integrative Medicine
- Drug Discovery
- Biochemistry
- Nutraceuticals
- Pharmacology
- Environmental Medicine
- Toxicology
- Computational Biology
- Food Science
- Nutritional Sciences
- Complementary and Alternative Medicine
- Combinatorial Chemistry
- Integrative Therapy (co-regulation therapy / multi-target therapy / co-therapies)
- Include actual therapeutic areas (e.g., cancer, inflammation, etc.)



Dr. V.A. Shiva Ayyadurai, Ph.D., a Fulbright Scholar and Lemelson-MIT Awards Finalist, serves as Faculty Lecturer at MIT Department of Biological Engineering and is the Founder and Executive Director of the International Center for Integrative Systems located in Cambridge, MA. Prof. Ayyadurai is a leader in the integration of TSM and Systems Biology, including creator of CytoSolve, a platform for dynamic integration of biological pathway models. His research focuses on the bio-molecular linkages across the worlds of Traditional and Modern medical systems.



Dr. Andrew Ahn, M.D., interests include disparities in health care, Traditional Chinese Medicine, and applications of systems biology to the acupuncture model. He obtained a Master's degree in Public Health at the Harvard School of Public Health. He is certified in acupuncture and continues his apprenticeship with an acupuncturist once a week. He is currently directing investigations as part of an NIH K career award focusing on the electro-magnetic mechanisms of acupuncture neuropathy.




Dr. C. Forbes Dewey, Ph.D., is a professor in MIT's Mechanical Engineering Department and holds joint appointments in the Division of Bioengineering & Environment Health and the Division of Health Science and Technology. He is also Co-Director of the International Consortium for Medical Imaging Technology (ICMIT) whose goal is the development and promotion of advanced technology for medical imaging. Professor Dewey's research interests include fluids mechanics, cell dynamics and modeling, biomedical imaging, medical informatics, and instrumentation.


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REGISTRATION INFORMATION

Key Code SC4

Mr. Ms. Mrs. Dr. Prof.

Name _____

Job Title _____ Div./Dept. _____

Company _____

Address _____

City/State/Postal Code _____

Country _____

Telephone _____

How would you prefer to receive notices from CHI? Email: Yes No Fax: Yes No

Email* _____ Fax _____

*Email is not a mandatory field. However, by excluding your email you will not receive notification about online access to pre-conference presenter materials, conference updates, networking opportunities and requested eNewsletters.

SHORT COURSE PRICING

Add a Short Course to your

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Single Short Course

Two Short Courses

Three Short Courses

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REQUIRED: Please select the short course(s) you will be attending

November 1

SC1 Allosteric Modulators of GPCRs

SC2 Structure-Based Design of Ion Channel-Linked Receptors

SC3 Target Validation in Drug Discovery

SC4 Molecular & Cellular Mechanisms of Traditional Systems of Medicine

November 3

SC5 Best Practices for Setting Up

Effective RNAi Screens

SC6 *In vivo* Discovery and Validation Using RNAi

SC7 Assessing Cardio Safety of Diabetes Drug Candidates

CONFERENCE PRICING

SINGLE CONFERENCE PACKAGE

Includes access to one (1) conference (excludes short courses)

Advance Registration Deadline until September 17, 2010

Registrations after September 17, 2010 and on-site

REQUIRED: Please select the 1 conference you will attend

November 2-3

Track 1: HDAC Inhibitors

Track 2: GPCR-Based Drug Discovery

Track 3: Ion Channels

Track 4: PI3K Pathways

MULTI CONFERENCE PACKAGE

Includes access to two (2) conferences (excludes short courses)

Advance Registration Deadline until September 17, 2010

Registrations after September 17, 2010 and on-site

REQUIRED: Please select the 2 conferences you're most likely to attend

November 2-3

Track 1: HDAC Inhibitors

Track 2: GPCR-Based Drug Discovery

Track 3: Ion Channels

Track 4: PI3K Pathways

POSTER DISCOUNT

REGISTER 3 - 4th IS FREE

Individuals must register for the same conference or conference combination and submit completed registration form together for discount to apply. Please reproduce this registration form as needed.

GROUP DISCOUNTS AVAILABLE! Special rates are available for multiple attendees from the same organization.

For more information on group discounts contact **David Cunningham at 781-972-5472**

I cannot attend but would like to purchase the Discovery On Target conference CD for \$750 (plus shipping). Massachusetts delivery will include 6.25% sales tax.

Please send information on exhibiting and opportunities to present workshops.

PAYMENT INFORMATION

Enclosed is a check or money order payable to Cambridge Healthtech Institute, drawn on a U.S. bank, in U.S. currency.

Invoice me, but reserve my space with credit card information listed below.

Invoices unpaid two weeks prior to conference will be billed to credit card at full registration rate. Invoices must be paid in full and checks received by the deadline date to retain registration discount. If you plan to register on site, please check with CHI beforehand for space availability.

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Discovery on TARGET

November 2 - 4, 2010

**World Trade Center
Boston**

Mail Registration to:

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Present a Poster and Save \$50!

Cambridge Healthtech Institute encourages attendees to gain further exposure by presenting their work in the poster sessions.

To secure a poster board and inclusion in the conference materials, your abstract must be submitted, approved and your registration paid in full by **September 22, 2010**. Register online, or by phone, fax or mail. Indicate that you would like to present a poster and you will receive abstract submission instructions via email.

I am interested in presenting a poster at

Discovery on Target

Title _____

CHI Insight Pharma Reports

A series of diverse reports designed to keep life science professionals informed of the salient trends in pharmaceutical technology, business, clinical development, and therapeutic disease markets.

For a detailed list of reports, visit InsightPharmaReports.com, or contact Rose LaRaia, rlaraia@healthtech.com, 781-972-5444.

Barnett Educational Services

Barnett is a recognized leader in clinical education, training, and reference guides for life science professionals involved in the drug development process. For more information, visit www.barnettinternational.com.

Additional Registration Details

Each registration includes all conference sessions, posters and exhibits, food functions, and access to the conference proceedings link.

Group Discounts

Special rates are available for multiple attendees from the same organization. **Contact David Cunningham at 781-972-5472** to discuss your options and take advantage of the savings.

Handicapped Equal Access

In accordance with the ADA, Cambridge Healthtech Institute is pleased to arrange special accommodations for attendees with special needs. All requests for such assistance must be submitted in writing to CHI at least 30 days prior to the start of the meeting.

Substitution/Cancellation Policy

In the event that you need to cancel a registration, you may:

- Transfer your registration to a colleague within your organization. Credit your registration to another Cambridge Healthtech Institute program.
- Request a refund minus a \$100 processing fee per conference.
- Request a refund minus the cost (\$750) of ordering a copy of the CD.

NOTE: Cancellations will only be accepted up to two weeks prior to the conference. Program and speakers are subject to change.

Video and or audio recording of any kind is prohibited onsite at all CHI events.