CTAHR Research News

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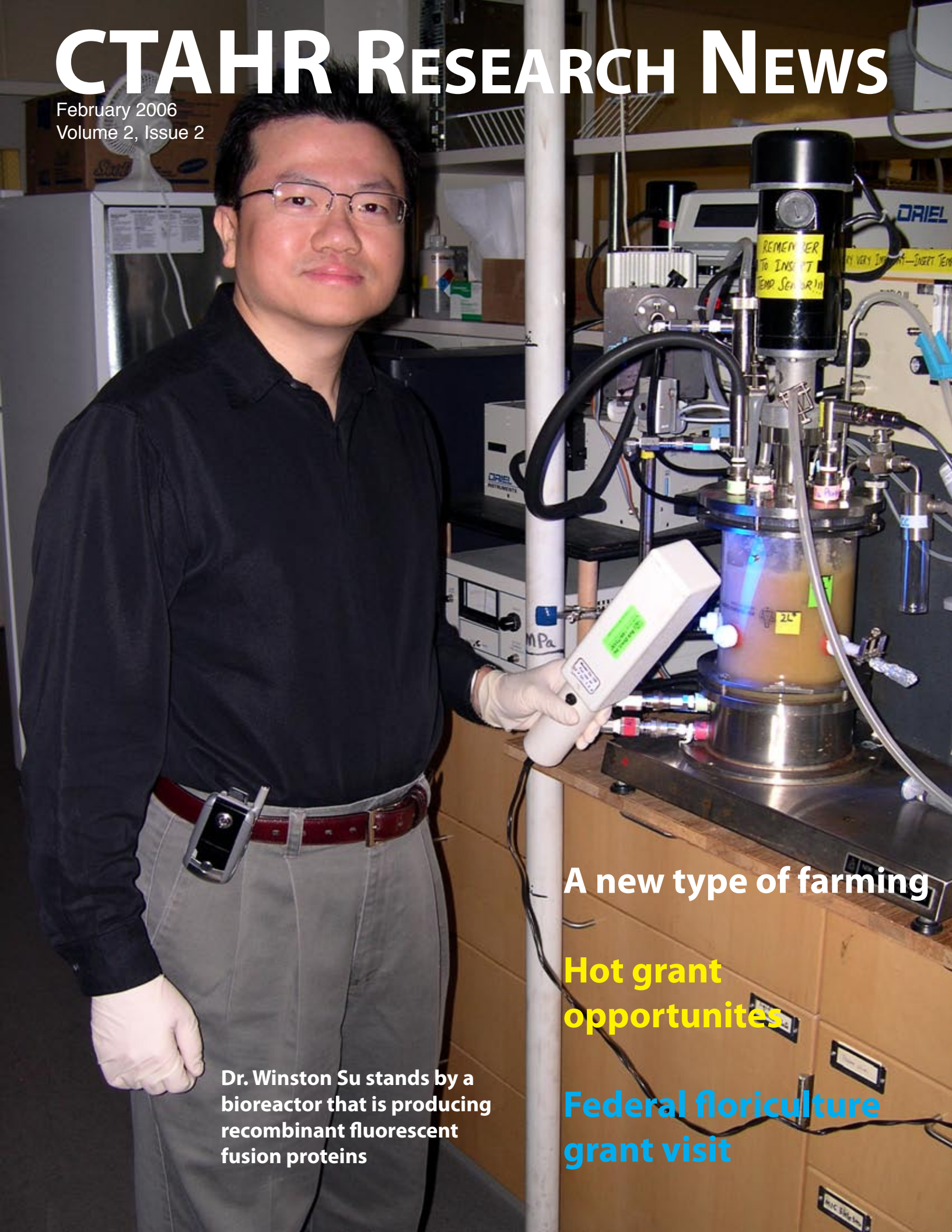

Dr. Winston Su stands by a bioreactor that is producing recombinant fluorescent fusion proteins

A new type of farming

Hot grant opportunites

Federal floriculture grant visit

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CTAHR
Office of Research

College of Tropical Agriculture and Human Resources
3050 Maile Way
Gilmore Hall 202
University of Hawaii at Manoa
Honolulu, HI 96822 USA
ph 808.956.4142
fx 808.956.9150
research@ctahr.hawaii.edu
www.ctahr.hawaii.edu

From the Associate Dean and Associate Director for Research

One of the most exciting aspects of working in CTAHR is the international flavor of our colleagues, outreach projects and laboratory teams. CTAHR's work in Iraq, East Timor, and the American-affiliated Pacific Islands brings some of the worlds' best minds to bear on local, national and international issues. This month, CRN spotlightsWinston Su's (MBBE) lab and the international flavor of his team.

Another great team worthy of recognition is the group at the Waimanalo Research Station on Oahu. Ag Techs have played a key role in establishing the Hawaii Agricultural Experiment Station (the forerunner of CTAHR) in 1901, on 154 acres of land on the Ewa side of Punchbowl Crater. Today, they continue to be vital to the success of our research and outreach projects and maintain the spirit of pride and dedication in doing a "hard days work."

Speaking of hard days: President Bush's FY 2007 budget proposal was released to Congress on February 6, 2006, and a major change within the USDA CSREES budget will have a severe impact on our research budget and how we manage our Hatch and McIntire-Stennis (forestry) projects.

CSREES proposes to take 30 percent of all Hatch formula funds to create a "competitive multi-state program" using a "yet-to-be-determined" process, while still requiring that all Experiment Stations spend 25 percent of their Hatch funds on existing multi-state projects. CSREES intends to phase out the existing multi-state projects, so as these projects terminate over the next four years, they will not be renewed. This funding will be shifted into the competitive multi-state pool and by 2011, it will have 55 percent of all Hatch formula funds.

The bottom line is this: CTAHR may lose 30 percent of its Hatch funds effective October 1, 2006, and Hatch funding will continue to decline until we reach 45 percent of our existing funding level. How does this translate into real dollars? CTAHR currently has $1.21 million dollars in Hatch funds that go toward faculty salaries, unit upkeep, individual faculty projects, and multi-state travel funds to attend project meetings. So, we stand to lose about $363,000 right away and that annual loss will increase to $723,000 by 2011.

Similarly, 60 percent of the existing McIntire-Stennis funds – about $160,000 – would be moved into a competitive multi-state program next year without any transition period. To compound the loss, the Animal Health and Disease program looks to be eliminated completely. Although this is only the President's ***proposed*** budget and Congress might change it, the proposal will not face the fierce opposition of last year.

Whatever the outcome of the debate on Capitol Hill, one thing is for sure: we need to continue to build our capacity to write winning grant proposals. To that end, Brian Turano will be providing grant writing classes to CTAHR faculty beginning March 14, 2006, which we hope will draw a lot of interest given the Hatch fund forecast. I will keep you informed as we go through this year's Congressional budget cycle.

Ching Yuan (CY) Hu
Associate Dean and
Director for Research

High-valued farming in a tube

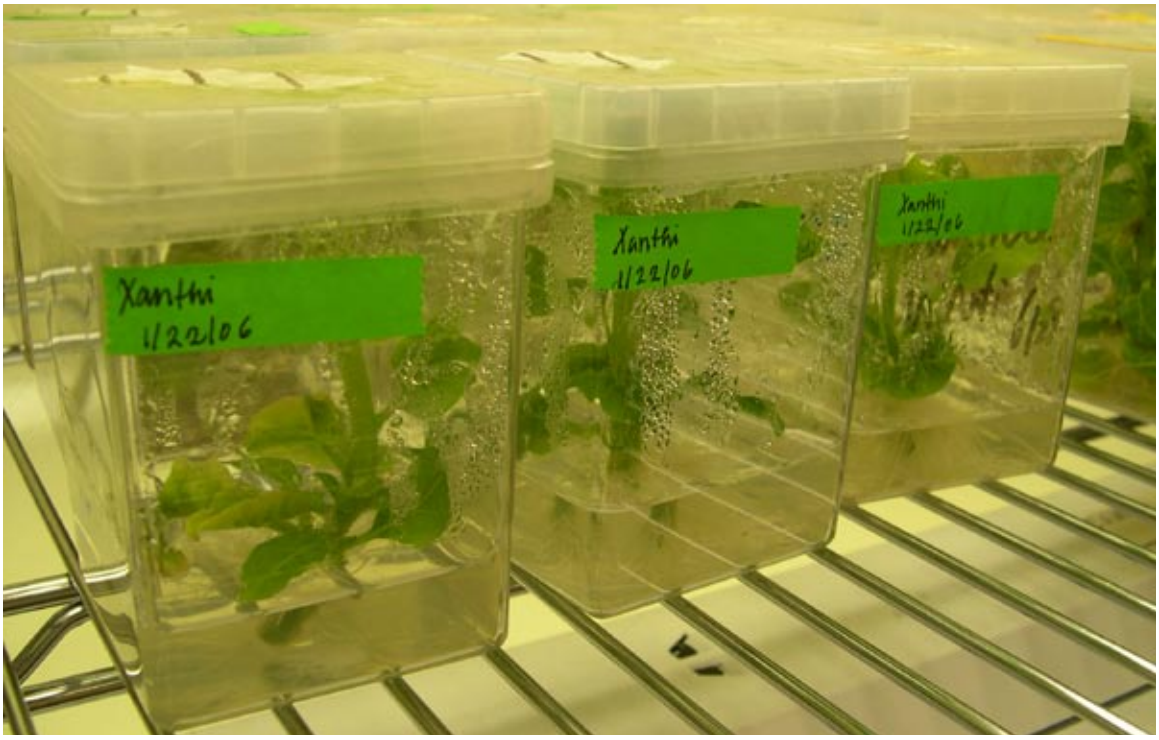
By Winston Su
Professor, Molecular Biosciences and BioEngineering (MBBE)

As you know, not all farming is done in soil. Such is the case in our lab where we are "plant molecular farming" in test tubes, culture bottles, and bioreactors of various sizes. We often hear about high-value agricultural crops such as Kona coffee, Volcano-grown wasabi, and macadamia nuts. So too is our interest in high-value agricultural products – recombinant proteins that could be used as human vaccines and therapeutics. These proteins could be used to combat cancer and noninfectious and infectious diseases.

We use plants, as well as cultured plant cells, to produce these valuable proteins since it is more cost-effective than producing them from their natural hosts. Using plants to produce recombinant proteins has been around since the late 1980s, and while growing plants for biopharmaceuticals is appealing, it has been met with public skepticism due to concern about the potential risks of environmental release and contamination of food supply by the transgenes or their protein products. To maximize the potential of plant molecular farming, our goal is to develop completely contained production environments to minimize the risk of transgene contamination. One of our major challenges right now is keeping production costs down, and at the same time, we aim to keep the production system clean from contamination. Whereas traditional systems require very expensive measures to keep them clean, we have been working to blend both molecular-biological and engineering approaches to make our system clean, safe and inexpensive to produce these valuable proteins.

One example of our approach is to "arm" the plants or plant cells with the capability to deter microbial contamination in culture by genetic modification to

Su's Lab: (L-R) Parasha Thapa (Nepal), Thara Venkatappa (India/Texas), Madhu Rapolu (India), Ivo Krab (Netherlands), Gonul Schara (Turkey), Maribel Zaporteza (Philippines), Gabriel Peckham (California), Chari Cortez (Hawaii), Winston Su (Taiwan).



Tissue-cultured plants are used to help develop new high-valued proteins.

introduce anti-microbial properties. In addition, we are also designing novel bioreactor technology to further create a sterile production environment. But new techniques are not without challenges: we also have to anticipate how a plant or plant cell is going to react in the new cultivation environment we are trying to create, and therefore, we have been conducting fundamental biological studies to address these questions.

An additional interest in our lab is to produce "biosensors," a sensing device made out of biological material. Our biosensor technology involves a synthetic protein that is capable of rapid detection of a variety of protein targets, like a protein on the surface of a particular cancer cell. When our biosensor is activated it will glow, and then we measure that glow to indicate the level of the target. We believe that this has potential for a full range of diagnostic applications for medicine and agriculture.

Please be assured that we do have a high level of security on our laboratory production system. We also sterilize or destroy all used production vessels and bleach all production media – it does not get poured directly down the drain.

I also want to point out that our cutting-edge ideas are not mine alone. We have scientists from around the world working on this exciting opportunity, and CTAHR is very fortunate to have such a dedicated group of people on their team…*and so am I.*

Winston Su

Hometown: Taiwan

Joined CTAHR: 1991

Educational history: MS Johns Hopkins (ChE), PhD Lehigh (ChE)

Specialization: Biochemical engineering

Current work: Molecular and engineering approaches to improve plant molecular farming in a contained environment and novel recombinant protein biosensors.

Languages spoken: English, Chinese

Dr. Albert G. J. Tacon named UH system aquaculture coordinator

By Dr. Albert Tacon
UH Aquaculture Coordinator

Dr. Albert Tacon's extensive international experience and reputation in aquaculture research, education and extension, together with his excellent communication skills, make him an ideal choice to coordinate and spearhead the establishment and further development of an international world class system wide aquaculture program at the University of Hawai'i and it's 10 campuses for the benefit of the State, Nation, and Pacific Region.

Tacon earned a B.Sc. in Botany and Zoology from Westfield College (University of London, England) in 1973, and a Ph.D. in Aquaculture Nutrition from University College (Cardiff, Wales) in 1978. From 1976 to 1980 he spent four years as Postdoctoral Research Fellow and Lecturer in Nutrition within the Department of Biological Sciences at Aston University (Birmingham, England) and in 1980 moved to the Institute of Aquaculture in Stirling (University of Stirling, Scotland) as Ministry of Agriculture, Fisheries & Food (Chief Scientist's Group) Postdoctoral Research Fellow until 1984.

He began his 14 year international career with the Food and Agriculture Organization (FAO) of the United Nations in 1984 by taking up a two-year appointment as Feed Technologist within the Inter-regional Aquaculture Development and Coordination Program at FAO Headquarters in Rome, Italy. In 1986 he was transferred to an FAO Regional Aquaculture Project in Pirasununga (Brazil; activities covering Latin America and the Caribbean), and then in 1988, was posted to a National Seafarming project in Bandar Lampung (Indonesia) for a one year assignment. In 1991, he moved back to FAO Headquarters in Rome and joined the Regular Program within the Inland Water Resources and Aquaculture Service of the FAO Fisheries Department as Fisheries Resources Officer, where he also served as Technical Secretary of the European Inland Fisheries Commission (EIFAC) Sub-Commission II on Aquaculture.

In 1998, Tacon moved to Hawai'i to take up an appointment at the Oceanic Institute in Waimanalo as Director and Program Manager of the Aquatic Feeds and Nutrition Program for a two year period. He has spent the last five years working as Research Director for Aquatic Farms Ltd. (a well established private aquaculture and fisheries consulting company based in Kaneohe on the Island of Oahu), working as an independent aquaculture consultant to various international organizations, governments and private companies. These include: FAO, the International Food Policy Research Institute, the World Wildlife Fund, Oregon State University Pond Dynamics Aquaculture Collaborative Research Support Program, University of Hawaii Sea Grant, UK Department for International Development (Aquaculture and Fish Genetics Program), Government of India (Marine Products Exports Development Agency), Japan International Cooperation Agency, and numerous private companies and farmers within the US and abroad.


Dr. Albert Tacon, UH Aquaculture Coordinator.

Dr. Tacon starts his appointment on January 1, 2006, and will have dual reporting lines to the Office of the Vice President for Research and the Office of the Vice Chancellor for Research and Graduate Education. One of his first tasks will be undertaking a comprehensive inventory and review of past and current aquaculture research, training and extension activities within the entire UH System, including past achievements and failures; and in-house staff assets and aquaculture capabilities.

Reach Dr. Tacon at 808.956.7128/atacon@hawaii.edu.

Recent publications and patents by CTAHR employees

Luisa Castro (NREM)

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David Christopher (MBBE)

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Dian Dooley (HNFAS)

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Ali Fares (NREM)

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Monto Kumagai (MBBE)

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Qingxiao Li (MBBE)

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Russell Messing (PEPS)

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Tomoaki Miura (NREM)

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Rachel Novotny (HNFAS)

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Robert Paull (TPSS)

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Daniel Rubinoff (PEPS)

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James Szyper (Sea Grant)

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Mark Thorne (HNFAS)

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Eduardo Trujillo (PEPS-Emeritus)

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Gordon Tsuji (TPSS)

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Mark Wright (PEPS)

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Jinzeng Yang (HNFAS)

Yang J, Zhao B. 2006. Postnatal expression of myostatin propeptide cDNA maintained high muscle growth and normal adipose tissue mass in transgenic mice fed a high-fat diet. *Mol Reprod Dev.* 73:462-469.

Federal floriculture research grant review team visits CTAHR

By Doug Vincent
Special Program Director for Grants and Contracts

On January 27, 2006, CTAHR welcomed eight growers representing several of Hawaii's floriculture industry groups to review research programs funded through the USDA CSREES Federal Floriculture Research Grant (FFRG). Representing the grower groups were:

- Carver Wilson, Protea Growers Association of Hawaii
- Thong Teng Neo, Big Island Dendrobium Growers Association
- Greg Braun, Hawaii Tropical Flower Council
- Eric Tanouye and Janet Kosaka, Hawaii Florists and Shippers Association
- Sean Spellicy, Big Island Association of Nurserymen
- Dalen Kawakami, Hawaii Anthurium Industry Association,
- Marja Brazier, Hawaii Tropical Flower and Foliage Association.

As part of the FFRG process, representatives visit labs, meet with scientists funded through the FFRG, and review the progress of currently funded projects. This year, the representatives visited the Magoon Research Facility Greenhouses, where they heard a presentation by TPSS faculty. Drs. Heidi Kuehnle and Tessie Amore on the anthurium and orchid breeding projects. Following them were Richard Criley, Kent Kobayashi and Ken Leonhardt who shared information on their light quality, light enhancement, and foliage research projects, respectively.

Back on Manoa campus, presentations were made by PEPS researchers. Dr. Janice Uchida shared her research on fusarium research on orchids; and Mr. Buncha Chinassri, who works jointly with Dr. Brent Sipes and Mr. Kelvin Sewake, presented nematode research on anthuriums. Lastly, Mr. Peter Toves and Ms. Tomie Vowell, two of Dr. Anne Alvarez's graduate students, presented research on novel biological control measures for bacterial blight on anthuriums in Pope Laboratory.

Continuing conversations between researchers and stakeholders is critical to the success of the FFRG: researchers have an opportunity to present their findings and show off their work and growers have an opportunity to express their concerns and discuss emerging problems in the floriculture industry. The meeting exemplifies the importance of seeking and receiving stakeholder input to ensure mutual success.

Speaking of anthrurium (l-r) Sean Spellicy,BIAN; Eric Tanouye,HFSA; Dalen Kawakami, HAIA; Tomie Vowell, CTAHR grad student; and Thong Ten Neo, BIDGA .

Funding your best ideas: a 12-step program

By Joan Straumanis (as suggested by Lori Yancura (FCS))
Former Fund for the Improvement of Post Secondary Education Program Officer

Part I: Before Writing

1. Innovate–and if you can't think of anything brand new, do something unexpected. This is your angle; now feature it.

2. Do your homework. Find your niche. What are others doing about this issue? Show that you know, and place your project within this context.

3. Build a team. Mix things up. Build and cross bridges among departments, disciplines and schools and colleges. Include students and administrators. Be generous: share work and ownership. Appoint an advisory committee of famous people in your field – to get a head start on dissemination – but don't give them much work to do, and you won't need to pay them very much.

4. Find the right funding agency. Know agency interests, culture and style. Submit applications to more than one agency (but, of course, don't accept multiple grants supporting the same activities).

5. Use the phone. Call a program officer, briefly summarize your idea, and prepare specific questions. Take the program officer's advice very seriously, but exercise your own best judgment. Some agencies are more directive than others.

Part II: While Writing

6. Use a journalistic writing style. Use the "W" words of journalism: Who, what, when, where, why, and how. Also use bullets, lists, outlines, diagrams, tables. Don't obsess on any topic, even if important. Make it interesting let every sentence do a job. Assume that your reviewer is reading in bed, falling asleep-which is very likely true.

7. Follow guidelines to the letter. Keep them before you as you write (but don't quote them back to the agency). Match headings in the proposal to headings in the guidelines so the reader doesn't have to hunt for needed information. Use "signposts": I am about to explain why I have just argued that.

8. Build-in continuation, evaluation, and dissemination. Factory installed, not an add-on and not postponed to the last year. Continuation plans are an indicator of institutional commitment. Evaluation should be independent and objective, but doesn't need to meet standards of the Journal of Psychometrics-use common sense. What would you want to know about the success of an idea before you would consider adopting it? Evaluate "politically" -i.e., with an eye toward later publicity. What would you want to see in headlines? Note the difference between passive and active dissemination. (The first disseminates admiration, not innovation.)

9. Watch the bottom line. Share costs. Know how to cut costs without hurting the project: request replacement salaries instead of released time, charge actual instead of estimated benefits, follow agency recommendations on indirect costs.

10. Leverage funds. Solicit funds from third parties, contingent on grant funding. This can be done in advance (to beef up cost share and make proposal more attractive), as well as after project is funded.

11. Get a sharp (toothed) reader. Best: someone unfamiliar with your field or your project. Not an editor/proofreader. Have them read final draft without taking notes. Then ask them to tell you

– from memory – what the project will do, how it will do it, why it is significant, and how it is different. Rewrite proposal if these answers aren't clear and correct, or they don't flow effortlessly.

12. Write the abstract last. Put in your key innovation. Write 3 versions: one page (first page of proposal, whether requested or not), one paragraph (if requested), and one line – the proposal title – which you should think of as a mini-abstract (descriptive and intriguing). Don't repeat abstract or proposal text. Prepare for the possibility that some sleepy reviewer might read only the abstract.

Other good advice:
Request reviews. Use the phone to ask agency staff why the project was or was not funded. If you are rejected, you can always try again.

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Important opportunities

CTAHR Grant-writing Series
A new grant-writing workshop series specifically designed for our faculty has been created. The first workshop is scheduled to begin on March 14, 2-4 pm in Ag. Sci. 219. A detailed workshop schedule and synopsis can be found at this website http://www.ctahr.hawaii.edu/vincent/Extramural_Funding_Workshop.pdf. The last five workshops involve extensive writing exercises; therefore, we are limiting the enrollment at twelve. Please contact Brian Turano turanob@ctahr.hawaii.edu or 956.9105 to enroll in this workshop series.

UHM Campus Facilities Evaluation
Interim Chancellor Denise Konan has appointed a Committee on Facilities Management to evaluate campus facilities and grounds services and operations. The committee has enlisted a national organization - the Association of Higher Education Facilities Officers - to assist in this effort. Their survey team will be on campus during the week of February 6, 2006, to take a look at UH Manoa and interview representatives from our various communities on campus.

As another part of the evaluation process, we're asking the entire campus community to participate in an online survey about your experiences with facilities operations and staff. Survey responses may be made anonymously; the survey takes only a few minutes to complete, and it's important that we hear from as many people on campus as possible.

To find out more about the evaluation process and meet the members of the evaluation team, visit the Web at:
http://manoa.hawaii.edu/mco/fm.html

To proceed directly to the survey, use this link:
http://manoa.hawaii.edu/mco/fmsurvey/

International Roots and Tubers Conference
14th Triennial Symposium of The International Society for Tropical Root Crops THEME: Roots and Tubers for Sustainable Development: Issues and Strategies. 20-26 November 2006 at the Central Tuber Crops Research Institute Thiruvananthapuram Kerala, India. Check out more on this conference here: < http://www.ctcri.org/>

New funding opportunities

U.S. Department of Agriculture
Western Integrated Pest Management Center (UC Davis) Ongoing Special Issues
Deadline: Open
http://www.wrpmc.ucdavis.edu/Research/specialissuesongoing.html

U.S. Department of Agriculture
Western Integrated Pest ManagementCenter (UC Davis) Pest Management Strategic Plans (Ongoing)
Deadline: Open
http://www.wrpmc.ucdavis.edu/Research/strategicplansongoing.html

U.S. Environmental Protection Agency
A National Student Design Competitionfor Sustainability Focusing on People, Prosperity, and the Planet
Deadline: February 20, 2006
http://es.epa.gov/ncer/rfa/2006/2006_p3.html

U.S. Department of Agriculture, CSREES
Integrated Pest Management Methyl Bromide Transitions Program, ICGP
Deadline: February 20, 2006
http://www.csrees.usda.gov/fo/fundview.cfm?fonum=1107

U.S. Environmental Protection Agency
Minor and Specialty Crops Integrated Pest Management Special Projects
Deadline: February 21, 2006
http://www.epa.gov/pesticides/grants/proposals/carat_rfp022106.pdf

Department of Health and Human Services
Centers for Disease Control and Prevention
Childhood Lead Poisoning Prevention Program
Deadline: February 21, 2006
http://www.cdc.gov/od/pgo/funding/EH06-602.htm

U.S. Environmental Protection Agency
Nanotechnology Research Grants Investigating Environmental and Human Health Effects of Manufactured Nanomaterials (Joint with EPA, NSF, NIOSH, NIEHS)
Deadline: February 22, 2006
http://es.epa.gov/ncer/rfa/2005/2005_star_nano.html

U.S. Corporation for National and Community Service
2006 Learn and Serve America Higher Education Grant
Deadline: February 28, 2006
http://www.learnandserve.gov/for_organizations/funding/nofa.asp

U.S. Department of Agriculture
Center for Tropical and Subtropical Aquaculture
Deadline for Pre-proposals: February 28, 2006
http://www.ctsa.org/EventDetail.aspx?eID=1127

Lance Armstrong Foundation
Community Group Grants
Letters of Intent Deadline: March 1, 2006
http://www.livestrong.org/atf/cf/%7BFB6FFD43-0E4C-4414-8B37-0D001EFBDC49%7D/2006%20RFP%20Community%20Program.pdf

U.S. Department of Agriculture
Suborganismal Biology and Genomics of Arthropods and Nematodes, NRI
Deadline: March 1, 2006
http://www.fedgrants.gov/search/downloadAtt.do?attId=3936

Hawaii Community Foundation
Medical Research
Deadline: March 1, 2006
http://www.hawaiicommunityfoundation.org/doc_bin/grant_rfps/MedResRFP2006.pdf

U.S. Department of Agriculture, CSREES
Interagency Microbial Genome Sequencing Program, NRI
Deadline: March 2, 2006
http://www.csrees.usda.gov/fo/fundview.cfm?fonum=1108

National Science Foundation
Microbial Genome Sequencing Program
Deadline: March 2, 2006
http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf06513

U.S. Environmental Protection Agency (Region 9)
Strategic Agricultural Initiative/Food Quality Protection Act Grant Program
Deadline: March 3, 2006
http://www.epa.gov/region09/funding/fqpa06.pdf

U.S. Corporation for National and Community Service
2006 Learn and Serve America Community-Based Grant Program
Deadline: March 7, 2006
http://www.learnandserve.gov/for_organizations/funding/nofa.asp

National Science Foundation
Global Learning and Observations to Benefit the Environment (GLOBE)
Deadline: March 8, 2006
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5466

U.S. Department of Education
Gaining Early Awareness and Readiness for Undergraduate Program (State Grants)
Deadline: March 9, 2006
http://a257.g.akamaitech.net/7/257/2422/01jan20061800/edocket.access.gpo.gov/2006/pdf/E6-749.pdf

U.S. Department of Education
Gaining Early Awareness and Readiness for Undergraduate Program (Partnership Grants)
Deadline: March 9, 2006
http://a257.g.akamaitech.net/7/257/2422/01jan20061800/edocket.access.gpo.gov/2006/pdf/E6-749.pdf

National Institutes of Health
Countermeasures Against Chemical Threats (CounterAct) Research Projects (U01)
Letter of Intent Deadline: March 10, 2006
http://grants.nih.gov/grants/guide/rfa-files/RFA-NS-06-004.html

U.S. Department of Agriculture
Foreign Agricultural Service
Foreign Market Development Cooperator Program
Deadline: March 13, 2006
http://www.fas.usda.gov/info/fr/2005/122805FMD.pdf

Hawaii Community Foundation
Family Literacy and Hawaii Pizza Hut Literacy
Deadline: March 15, 2006
http://www.hawaiicommunityfoundation.org/doc_bin/grant_rfps/Literacy_FamilyRFP_2006.pdf

University of Hawaii Sea Grant Program
2007-2009 Biennium Grant Cycle
Preliminary Proposals Deadline: March 15, 2006
http://www.soest.hawaii.edu/SEAGRANT/home/pdf/RFP%20-%202007-2009.pdf

National Science Foundation
Carbon and Water in the Earth System
Deadline: March 15, 2006
http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf06514

U.S. Environmental Protection Agency (Region 9)
Source Reduction Assistance Grants Program
Deadline: March 15, 2006
http://www.epa.gov/region09/funding/p2-sourcesup06.pdf

College of Tropical Agriculture and Human Resources
Federal Floriculture Research Grant
Deadline: March 17, 2006
http://www.ctahr.hawaii.edu/vincent/Floriculture/Floriculture_RFP_06.pdf

College of Tropical Agriculture and Human Resources
Agricultural Diversification: Hawaii Tropical Specialty Fruit Research and Development
Deadline: March 17, 2006
http://www.ctahr.hawaii.edu/vincent/tropfruit/Tropical_Fruit_RFA_2006_final.pdf

U.S. Fish and Wildlife Service
Cooperative Endangered Species Conservation Fund
Deadline: March 20, 2006
http://www.fws.gov/endangered/grants/section6/index.html

U.S. Department of Agriculture
Natural Resource Conservation Service
Conservation Innovation Grants
Deadline: March 20, 2006
http://www.nrcs.usda.gov/programs/cig/

U.S. Environmental Protection Agency
Biotechnology: Potential Allergenicity of Genetically Engineered Foods
Deadline: March 21, 2006
http://es.epa.gov/ncer/rfa/2005/2005_star_biotech.html

National Institutes of Health
Shared Instrumentation Grant Program (S10)
Deadline: March 22, 2006
http://grants.nih.gov/grants/guide/pa-files/PAR-06-093.html

National Science Foundation
Ethics Education in Science and Engineering
Deadline: March 24, 2006
http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf06524

U.S. Department of Education
Native Hawaiian Education Program
Deadline: March 24, 2006
http://a257.g.akamaitech.net/7/257/2422/01jan20061800/edocket.access.gpo.gov/2006/pdf/E6-750.pdf

U.S. Environmental Protection Agency (Region 9)
Solid Waste Management Assistance
Pre-proposals Deadline: March 27, 2006
http://www.epa.gov/region09/funding/rcra06.pdf

U.S. Department of Health and Human Services
Substance Abuse and Mental Health Services Administration
Assertive Adolescent and Family Treatment
Deadline: March 29, 2006
http://www.samhsa.gov/Grants06/RFA/TI_06_007_adolescent.aspx

U.S. Department of Agriculture
Rural Business Cooperative Service
Value Added Producer Grant
Deadline: March 31, 2006
http://www.rurdev.usda.gov/rbs/coops/VAPG%202006%20Application%20Guide%20Final.pdf

U.S. Department of Agriculture
Natural Resources Conservation Service
Grazing Lands Conservation Initiative
Deadline: April 3, 2006
http://www.nrcs.usda.gov/programs/glci/

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
Workplace Violence Prevention Research
Letter of Intent Deadline: April 4, 2006
http://www.cdc.gov/od/pgo/funding/OH06-004.htm

U.S. Department of Health and Human Services
Substance Abuse and Mental Health Services Administration
Recovery Community Services Program
Deadline: April 4, 2006
http://www.samhsa.gov/Grants06/RFA/TI_06_004_rcsp.aspx

U.S. Department of Health and Human Services
Substance Abuse and Mental Health Services Administration
Treatment for Homeless
Deadline: April 6, 2006
http://www.samhsa.gov/Grants06/RFA/TI_06_005_homeless.aspx

U.S. Department of Agriculture
National Integrated Water Quality Program - Conservation Effects Assessment Project
Deadline: April 11, 2006
http://www.csrees.usda.gov/funding/rfas/conservation_effects.html

U.S. Department of Agriculture
National Integrated Water Quality Program
Deadline: April 11, 2006
http://www.csrees.usda.gov/funding/rfas/water_quality.html

U.S. Department of Interior
National Park Service
Federal Save America's Treasures
Deadline: April 18, 2006
http://www.cr.nps.gov/hps/treasures/index.htm

National Fish and Wildlife Foundation
The Nature of Learning Start-Up Grants
Deadline: April 19, 2006
http://www.nfwf.org/programs/tnol.cfm

Lance Armstrong Foundation
Issues of Cancer Survivorship
Letter of Intent Deadline: April 24, 2006
http://www.livestrong.org/atf/cf/%7BFB6FFD43-0E4C-4414-8B37-0D001EFBDC49%7D/2006%20issues%20of%20survivorship%20rfp.pdf

U.S. Department of Agriculture
Youth Farm Safety and Education Certification Program
Deadline: April 24, 2006
http://www.csrees.usda.gov/fo/fundview.cfm?fonum=1093

National Fish and Wildlife Foundation
Pulling Together Initiative
Public-Private Partnerships to Manage Invasive Weeds
Deadline: May 1, 2006
http://www.nfwf.org/programs/pti.cfm

U.S. Environmental Protection Agency
Collaborative Science and Technology Network for Sustainability
Deadline: May 17, 2006
http://es.epa.gov/ncer/rfa/2006/2006_star_cns.html

Meet our Waimanalo Research Station crew!

Once again we are exited to share with you a little something about the crew that takes good care of our Waimanalo Research Station. I want to thank them all for their dedication to quality science.

Roger C. Corrales

Hometown: Narvacan, Ilocos Sur Philippines
Joined CTAHR: 1990
Educational history: BS, Agriculture, Central Luzon State University, PI.
Current work: Farm manager.

Curtis Kobashigawa

Hometown: Waipahu, Oahu
Joined CTAHR: 1989
Educational history: HS, Waipahu High, AS in Automotive Technology, LCC.
Current work: Farm machinery, motor vehicle maintenance & repair.

Ronald Luning

Hometown: Kaimuki, Oahu
Joined CTAHR: 1989
Educational history: Kalani, HS, Ag. Certificate, WCC.
Current work: Weed control.

Juanito Garces

Hometown: Narvacan, Ilocos Sur Philippines.
Joined CTAHR: 1991
Educational history: BS, Agriculture, Sta. Maria Agricultural College, PI.
Current work: Irrigation installation & maintenance.

Rommel Corrales

Hometown: Kalihi, Oahu
Joined CTAHR: 2001
Educational history: HS, Farrington.
Current work: Plant propagation and seed processing.

Stacey Chun

Hometown: Moanalua, Oahu
Joined CTAHR: 2000
Educational history: HS, Moanalua, BS, Gen. Ag. UH, Hilo.
Current work: Nursery plant propagation on tropical flowers.

William Duque

Hometown: Pangasinan, Philippines
Joined CTAHR: 2005
Educational history: HS, Mangatarem High.
Current work: Tractor operation, service and maintenance.