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**Adil M. Choudhary** of **Roswell, NM**, has been elected a Fellow of the American College of Physicians, the second largest physician group in the U.S. Dr. Choudhary is clinical assistant professor of internal medicine at the University of New Mexico School of Medicine.

**Michael Lewis** of **New Brunswick, NJ**, was interviewed by CNN for a program on "Lying and Deception in Children." The interview was broadcast on June 29, 2004. Also during June, Dr. Lewis was appointed to the editorial staff of *Current Pediatric Reviews*. He is university distinguished professor of pediatrics and psychiatry at the University of Medicine and Dentistry of New Jersey.

**Saw-Teen See**, of **New York, NY**, professional engineer and managing partner of NYC-based Leslie E. Robertson Associates, R.L.L.P., was elected to the grade of Hon-



orary Member of the American Society of Civil Engineers (ASCE). She was selected for her innovative contributions to the field of structural engineering through the design of many of the world's signature buildings. Ms. See holds a Bachelor of Science and a Master of Engineering degree, both from Cornell University.

**Daniel B. Yarosh** of **Freeport, NY**, has been named Finsen Lecturer for 2004. The award, given by the International Photobiology Congress, recognizes outstanding accomplishments in photobiology research. Dr. Yarosh's research focuses on DNA repair and the prevention of skin cancer. He is CEO and founder of AGI Dermatics.

## FEATURED MEMBER

## MERGING MODERN

**T**o Hong Kong born and raised Albert Y. Leung, the benefits of drugs based on modern Western medicine and those of medicinal herbs and other "natural" remedies used for centuries in traditional Chinese cultures are by no means mutually exclusive.

Dr. Leung, who obtained a B.S. degree in pharmacy at the National Taiwan University and then came to the United States in 1962 and earned M.S. and Ph.D. degrees in pharmacognosy at the University of Michigan, in Ann Arbor, grew up experiencing the powers of traditional Chinese approaches to medicine.

"My great grandfather on my mother's side was a local doctor in his little village," Leung, a member of the New York Academy of Sciences since 1987, recalled in a recent interview with *Update*. "I never knew him, but my grandmother knew a lot about herbs. I grew up taking herbs."

For the past three decades, Leung has been driven to use the tools and knowledge of modern medical science to understand the mechanisms – or active components – of herbs that make them effective in reducing certain aches and pains and often alleviating other symptoms of illness.

"I knew that for certain problems herbs were effective," Leung said, "but then no one really understood why they worked. Now we know that many herbs contain active ingredients that are antioxidant or anti-inflammatory agents."

After moving to Glen Rock, N.J. in the late 1970s, Leung created an information company, AYSL Corp., which he said "probably holds the most extensive collection of Chinese journals in a single location outside of China" covering traditional Chinese medicine. He published the *Encyclopedia of Common Natural Ingredients Used in Food, Drugs and Cosmetics* (Wiley-Interscience, 1st Ed., 1980; 2nd Ed., 1996; 3rd Ed., in preparation) hailed at the time as the most authoritative reference for natural ingredients in commercial use.

**There are many common ailments that modern medicine still does not understand.**

In the past 30 years dietary supplements and "health foods" based on "natural" ingredients have become a major industry. Leung said he is concerned about the safety and efficacy of many products sold as herbal extracts. "The major problem is that everyone claims their product is the best," he said, "but there is no real science behind it, no real controls. To say that a product is standardized doesn't mean much when, for many of these prod-

ucts, the active ingredient is not known."

In 1996, therefore, he founded a second company, Phyto-Technologies, Inc., to specialize in herb research and in custom formulation/manufacture of Chinese herbal products for private-label distribution. With facilities in Glen Rock, N.J., and Woodbine, Iowa, the company now has 20 employees. Leung serves as president and chief executive officer.

# AND ANCIENT MEDICINES

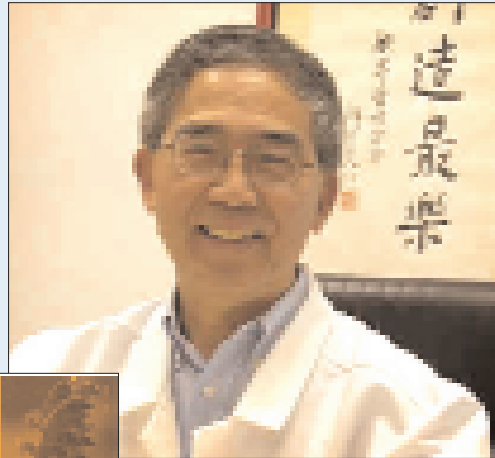
“My approach is to provide the quality control needed to make the extracts the way they are supposed to be made,” Leung explained. “Certain herbs have to be extracted by traditional methods, such as boiling in water or soaking in alcohol. In the past four or five years we’ve developed some more technical aspects, but our approach is to combine appropriate science with the traditional methods necessary to retain the total benefits of traditional Chinese herbs.”

Leung is currently engaged in the third year of a research study of the herb feverfew [*Tanacetum parthenium* (L.) Schultz Bip.] for use in migraine prevention. His company has been awarded a Small Business Innovation Research grant by the National Center for Complementary and Alternative Medicine to conduct the study, for which he is the principal investigator. This second year of the Phase II Grant, Reproducible Feverfew Preparations for Migraine Trials, is being fully funded in the amount of \$690,337. Dr. Dennis V.C. Awang, of MediPlant, Inc., an expert in the chemistry of feverfew, is the co-principal investigator. Leung said the total funding for both phases of the three-year project is about \$1.4 million.

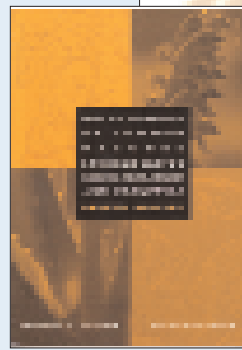
The main objective of the work is to characterize and standardize one or more feverfew preparations, Leung said, which have the greatest potential for use in anti-migraine clinical trials on humans. During the past 20 years there have been four clinical trials – three using dried feverfew leaf powder and one using a CO<sub>2</sub> supercritical fluid extract (SFE) – that yielded positive results in migraine prevention. But another trial using a 90% ethanolic extract (by prolonged extrac-

tion), containing high levels of parthenolide (0.35%), produced negative results.

“These results indicated that parthenolide is not the active principle of feverfew in migraine prevention, as previously assumed,” Leung said. The researchers then used chromatographic and spectrophotometric profiling and



In addition to conducting research and writing books about herbal medicine, Albert Y. Leung produces a newsletter on the subject.



*Chinese Herbs & Foods*, and he currently serves as an advisor to the Modernizing Chinese Medicine International Association, which is headquartered in Hong Kong.

bioassay and gene expression assay techniques to define and isolate the potentially active components present in the dried leaf and the SFE, but absent in the prolonged extract.

Further studies are now in progress to characterize the potentially active components, Leung said. “Pilot batches of materials standardized to contents and physicochemical profiles of these components will be prepared and further subjected to activity verification by bioassay and gene expression assay,” he added, “which will then be subjected to clinical trials.” If all goes well, Leung said the work would result in a safe and effective over-the-counter drug for relief of migraine.

In the meantime, Leung continues to see his role as one of communicator as well as researcher. In 1995 he published another book, *Better Health with (Mostly)*

“There are a lot of aspects of modern medicine that are superior,” commented Leung, “but there are many common ailments that modern medicine still does not understand nor is it able to treat. And there are herbs that work to reduce

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aches and pains – even though we may not know the active ingredients that make them work. I think the two forms of medicine should be used side by side.”

–Dan Van Atta