

## Announcements

### Dr. Josef Steiner Cancer Award 1994

*Bern (Switzerland)*

The 9th Dr. Josef Steiner Cancer Research Prize 1994, amounting to sFr 400'000.-- (approx. \$ 300'000) goes to Dr. Judah Folkman, Professor of Anatomy and Cellular Biology, Harvard Medical School, Boston, MA, U.S.A. for his important discovery that tumor growth is angiogenesis-dependent.

Dr. Folkman and his colleagues demonstrated that progressive tumor growth depends upon continuous recruitment by a tumor of new blood vessels from the host (i.e., angiogenesis). These capillary blood vessels not only transport nutrients and oxygen to the tumor and carry away wastes, but the cells which line the blood vessels (called endothelial cells), also manufacture many powerful growth factors which further stimulate the growth of tumor cells.

Dr. Folkman's laboratory discovered the first of several special angiogenic proteins which tumors elaborate to stimulate blood vessel growth. If a tumor is unable to produce angiogenic proteins, its growth is usually restricted to a very small volume of few cubic millimeters. Most human cancers are not angiogenic when they first originate and may exist at this small size for several years without causing symptoms and without being detectable, before some of their cells "switch" on angiogenic activity. Once a tumor becomes angiogenic, it may expand to more than 1000 times its original size. The new blood vessels also become conduits for tumor cells to enter the main circulation and take up residence in remote organs (i.e., metastases).

Dr. Folkman and his associates also discovered new molecules which inhibit angiogenesis. Some of these angiogenesis inhibitors circulate in the blood at very low levels; others are produced by fungi. When mice are treated with these non-toxic drugs, abnormal blood vessel growth is suppressed and the growth of tumors and metastases is inhibited.

These and other angiogenesis inhibitors are currently being administered to patients with advanced cancer in clinical trials conducted in the US and Europe. It has also been found that these inhibitors can be used to suppress the abnormal growth of blood vessels in certain non-cancerous diseases, such as the new blood vessels which grow into the eye of diabetics and cause blindness, or the new blood vessels which grow into the joints in arthritis, or which grow in the airway or liver of infants who have developed hemangiomas.

The field of angiogenesis research is now being studied

by many scientists throughout the world. The same molecules and mechanisms which govern tumor angiogenesis, also appear to operate in the female reproductive tract, during development of an embryo and during repair of a wound, healing of a stomach ulcer, or healing of a myocardial infarct in the heart. The difference between these normal or "physiological" types of angiogenesis and the abnormal or "pathological" angiogenesis which occurs in diseases such as cancer and diabetic blindness, is that physiological angiogenesis is tightly regulated and is turned 'on' for only very brief intervals (i.e., days). In contrast, tumor angiogenesis stays 'on' for years and persists as do other types of abnormal angiogenesis. A major goal for scientists working in this field is to understand how normal angiogenesis is regulated, so that abnormal angiogenesis can be turned off in tumors and in other diseases.

### 30th ESF/EUCHEM Conference on Stereochemistry

*Bürgenstock, Switzerland, 30 April–6 May, 1995*

*President: Prof. H. Schwarz, Institute of Organic Chemistry, TU Berlin, Germany.*

*Secretariat: Prof. A. Vasella, Laboratory of Organic Chemistry, ETH Zürich, Universitätsstrasse 16, CH-8092 Zürich, Switzerland.*

### The U.K. Association of Pharmaceutical Scientists (UKaps)

**"Natural Products as Drugs and Medicines"**

*King's College London, Manresa Road, 18 November 1994.*

**UKaps 4th Annual Symposium**

*University of Nottingham, 11–13 April 1995.*

For information on the above events, contact: Siân Griffiths, UKaps Office, University of Wales College of Cardiff, Welsh School of Pharmacy, Redwood Building, Cardiff, CF1 3XF, Wales, U.K.

## International Gerontology Week

*Tokyo, Japan, August 20–26, 1995*

### *Preliminary Information*

*An international forum for discussing advancement and future research strategies on aging and age associated diseases will be held in Tokyo, in August 1995.*

### **Part 1: The Sixth Congress of International Association for Biomedical Gerontology—Pharmacological strategies for aging and age-associated disorders.**

*3 days. August 21–23, 1995.*

Papers will be accepted that are concerned with all aspects of mechanisms of aging and age-associated diseases, but the major attention will be focused on possible interventions by means of pharmaceuticals, chemicals and nutrients in aging and age-associated disorders. This part will consist of Symposia by invited speakers as well as free papers. Some speakers for the Symposia will be selected from submitted papers so that an early submission of abstracts is encouraged.

The major subjects to be discussed will include mechanisms of aging, anti-aging strategies including antioxidants, neurodegenerative diseases such as Parkinson's disease and Alzheimer's disease, arteriosclerosis, its pathogenesis and prevention, ischemic heart and brain diseases, brain metabolism stimulants and pharmacotherapy in the elderly.

### **Part 2: The Fifth International Symposium on Lipofuscin and Ceroid Pigments, Biomarkers for aging.**

*3 days. August 24–26, 1995.*

This symposium on Ceroid and Lipofuscin Pigments will focus on this particular aspect of the cellular aging process but will be discussed from various points of view (i.e. morphology, biochemistry, physiology, pathogenesis and its prevention). The Symposium will consist primarily of invited lectures as has been done in previous meetings, but will also accept the presentation of submitted papers primarily as poster presentations. Again, some of the submitted papers will be selected for oral presentation as additional invited speakers.

Contact: K. Kitani, M.D., Professor and Director, Radioisotope Research Institute, Faculty of Medicine, University of Tokyo, 7-3-1, Hongo, Bunkyo-ku, Tokyo 113. Tel: +(81) 35802-2937. Fax: +(81) 35802-4329.

## The Animal Navigation Group

The Animal Navigation Group was formed in July 1994 in response to the interest expressed at two very successful RIN meetings on Animal Navigation held in Cardiff in 1989 and Oxford in 1993.

The aim of the group is to provide an international link between research scientists and other interested people over the whole range of research disciplines that relate to animal navigation including orientation, migration, neurobiology, animal behaviour, sensory physiology and ecology.

The Group will act as a forum to collect, collate and disseminate news on animal navigation research via a biannual news letter. A major conference will be held every 4 years (the next in 1997) and small thematic meetings will be held more frequently, often in association with other learned societies.

As many of the researchers in the field of animal navigation are spread around the world the intention is to distribute information between group members electronically by FAX and EMail as far as possible.

Membership of the Animal Navigation Group is available to any person or organisation already a Member or Associate of the Institute. Personal annual fees are £50 or £30 respectively.

Further details may be obtained by contacting the Group Chairman:

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