Crafoord prize

Isotope pair rewarded

Two isotope geochemists, Professor Claude Allègre of the Institut de Physique du Globe in Paris and Professor Gerald Wasserburg of Caltech, have won this year's Crafoord prize, awarded by the Royal Swedish Academy of Sciences. This younger relation of the Nobel prize has been given annually since 1980, to honour outstanding basic research in the "non-Nobel" fields of mathematics, astronomy, life sciences and earth sciences.

Isotopic ratios, which were first measured in rocks and minerals to determine their ages, are now used as sensitive tracers of geological and cosmological processes. Both prizewinners are skilled experimentalists who have developed highly

Allègre (left), mantle evolutionist, and Wasserburg, Solar System chronologist.

precise analytical techniques and applied them to important problems in the evolution of the Earth and Solar System.

Professor Wasserburg is perhaps best known for his work in establishing the chronology of the Solar System, which involved the analysis of very small lunar and meteoritic samples. Although he refers to his laboratory as the "Lunatic Asylum", he has also worked on terrestrial problems, using the rare gases and strontium and neodymium isotopes as tracers in systems ranging from the Earth's mantle to the oceans. Recently he has been using the isotope systematics of cherts, modern and ancient, as clues to the chemical evolution of sea water.

Although Professor Allègre has also worked on meteorite and lunar chronology, including making the first measurements of osmium isotopes using secondary ion mass spectrometry, his overwhelming interest has been in "chemical geodynamics" — the use of isotopes and trace elements as tracers of geological processes. His measurements of Sr, Nd and Pb isotopes in crustal and mantle-derived rocks have formed the basis for models of mantle evolution and the formation of the continental crust — models which he has recently been constraining using rare-gas isotopes in mantle-derived rocks.

In addition to the prize of 1 million kroner (£100,000), awarded to the two men, the Crafoord Foundation will give grants of 625,000 kroner for Swedish research in isotope geology. **Laura Garwin**

Lasker prizes

Threesome gain AIDS award

Washington

THE winners of this year's Albert Lasker Awards were announced earlier this week in New York. A total of six individuals were honoured; three for work on AIDS (acquired immune deficiency syndrome), two for the discovery of growth factors, and one for his contributions to public health in China.

The award for clinical medical research went to Myron (Max) Essex of the Harvard School of Public Health in Cambridge, Robert Gallo of the National Cancer Institute in Bethesda, and Luc Montagnier of the Pasteur Institute in Paris for "unique contributions to understanding of AIDS". The award comes in the midst of legal wrangling between the US National Institutes of Health and the Pasteur Institute over the discovery of the virus causing AIDS. A US patent for a blood test to screen for antibodies to the AIDS virus was awarded initially to Gallo, but may ultimately revert to Montagnier and the Pasteur Institute pending a patent office investigation. There has been an intense and occasionally bitter rivalry between the French and US investigators concerning research on the AIDS virus.

By awarding the prize to all three men, the Lasker jury sought to cast oil on troubled waters. But the waters are apparently still rolling. A last minute change in the press announcement of the award credited Montagnier with discovering a virus "later shown to be the cause of AIDS", whereas the first version said his discovery was "the retrovirus responsible for causing AIDS". The change was made after US jurors raised objections to the original wording.

The award in basic science went to Rita Levi-Montalcini of the Institute of Cell Biology in Rome and Stanley Cohen of Vanderbilt University School of Medicine in Nashville for their work on growth factors. Levi-Montalcini is credited with discovering nerve growth factor, something she and Cohen both worked on at Washington University during the 1950s. Cohen later isolated and purified epidermal growth factor.

The award for public service went to Dr Ma Haide, senior advisor to the Ministry of Health of the People's Republic of China. His award is for the programme he instituted that controlled venereal disease among China's 500 million population in the 1950s. Born George Hatem in 1910 in Buffalo, New York, Dr Ma travelled to China in 1933 to study tropical medicine. When war broke out, he joined Mao ZeDong's forces in the north. After the war, he stayed on in China, attacking the problem of venereal disease which was pandemic in China at the time. Dr Ma trained a small army of so-called barefoot doctors who went throughout the country finding venereal disease cases and treating patients with new antibacterial drugs rarely seen in China until then. The eradication programme was declared a success by 1959.

In the 1960s Dr Ma turned his attention to an effort to eliminate leprosy in China, and in 1983 he formed the China Leprosy Foundation.

Dr Henry Heimlich, professor of advanced clinical sciences at Xavier University in Cincinnati and himself the recipient of a Lasker Public Service Award in 1984 nominated Dr Ma for the Award. Heimlich describes Ma's accomplishments in controlling disease in China as "overwhelming". Dr Ma resides in Beijing where he has lived for 53 years. He is the first non-Chinese to hold a Chinese passport.

The Lasker winners. Top, left to right: AIDS workers, in alphabetical order: Essex, Gallo and Montagnier. Bottom: Cohen and Levi-Montalcini (growth factors) and Ma Haide (Chinese medicine).

Winners of the Lasker award recieve a $15,000 prize. The award, given since 1944, has forty-two times been a precursor of a subsequent Nobel prize. This is Gallo's second Lasker Award. He won the basic science award in 1982, along with four others, for contributions to the understanding of how normal cells are transformed into cancer cells. But no Nobel prizes have yet followed.

Joseph Palca