La Jolla, CA. April 23, 1993 -- Cited for their pioneering work in synthesizing a
complete form of an essential lung material that prevents respiratory distress syndrome,
two scientists from The Scripps Research Institute (TSRI) have received the 1993
Inventor of the Year Award from the San Diego Intellectual Property Law Association
(SDIPLA).

Charles G. Cochrane, M.D., a member of the Institute’s Department of
Immunology, and Susan D. Revak, Scientific Associate, were honored last night at a
ceremony at the San Diego Yacht Club.

An explanation of their work in developing a synthetic form of pulmonary
surfactant, the material that keeps air sacs open thereby preventing the death of
premature babies and adults due to respiratory distress syndrome, appeared last year in
the journal, Science. They received approval from the Food and Drug Administration
for investigational studies of the material in December, 1992, and recently began clinical
trials in three California medical facilities.

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According to Dr. Cochrane, 25 percent of premature babies die of respiratory distress syndrome; the mortality rate for adults who acquire the disease is 50%. He stated that one or two administrations of the synthetic surfactant may be enough to allow a baby to recover.

Composed of phospholipids and proteins, human surfactant is secreted by lung cells, coats the inner lining of the lung, and prevents it from collapsing during exhalation.

In eight years of research on surfactants, Cochrane and Revak took an interest in the protein components of the substance. They determined that one called Surfactant Protein-B (SP-B) appeared to play the most important role in working with surfactant phospholipids to keep air sacs open. After determining how it functioned to enhance the strength of the layer within the pulmonary alveoli, they were able to synthesize an analog of the protein. Also, they have demonstrated that it can be produced simply and inexpensively for potential therapeutic use.

Thus far, their work has resulted in one U.S patent and it is expected that another will be issued in the near future.

Each year, the San Diego Intellectual Property Law Association presents the Inventor of the Year Award to the inventor(s) whose invention is determined to be the most innovative based on criteria including human interest, technical achievement and commercial success. To qualify, the inventor(s) must have patented the invention in the
U.S. within the applicable year and be a San Diego County resident. Nominations are solicited from the members of the SDIPLA, each of whom must be admitted to practice before the U.S. Patent and Trademark Office. The judges are selected from San Diego’s academic and business community, and must not be members of SDIPLA.

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