PRINCESS LILIAN FOUNDATION VISITING PROFESSORSHIP FOR PROF. ANASTASIOS A. TSIATIS

The First time ever this professorship was given to a statistician

Professor Anastasios Tsiatis from North Carolina State University (Raleigh, North Carolina, US) will be visiting the Interuniversity Institute for Biostatistics and statistical Bioinformatics (I-BioStat) from both Hasselt University and the Catholic University Leuven.

Little background

This visiting professorship has been created by the Princess Lilian Foundation with the specific aim to foster interaction between researchers based in Belgium and Europe and established experts.

Previous Visiting Professors include:

- Professor D. Melton (Harvard University; hosted by Professor D. Pipeleers, VUB)
- Professor Zeiher (Frankfurt, Germany; hosted by Professor Ch. Vrints, UIA)
- Professor Dietze (Johns Hopkins Medical School; hosted by Professor A. De Paepe, RUG)
- Professor P. Brown (Stanford University; hosted by Professor J. Dumont, ULB)
- Professor B.P. Bean (Harvard University; hosted by Professor V. Seutin, ULg)
- Professor Qais Al-Awqati (Columbia University; hosted by Professor O. Devuyst, UCL)

The period envisaged for the visit is May-June 2011. In this period Prof. Tsiatis will teach a doctoral-training course based on his state-of-the-art Springer book on semi-parametric theory and incomplete data. Furthermore Prof. Tsiatis will provide guidance to the doctoral students of both host institutions.

Prof. Tsiatis will give a sequence of research seminars on his research topics. These are positioned around survival analysis, clinical trials, surrogate markers, joint analysis of survival and longitudinal outcomes, and semi-parametric theory. His seminars will explicitly be accessible to researchers in medical statistics, biomedical research, and epidemiology. This will encompass researchers at the host institutions, other Belgian universities, the (biopharmaceutical) industry, and (governmental) research institutes, in particular the EORTC, of which the cancer-related mission is right at the heart of one of Prof. Tsiatis' main research interests and domains of expertise.

The research seminars will be of particular appeal to biomedical researchers and to quantitative researchers, in particular biostatisticians, working in the biomedical area.

Details of the seminars are as follows:

- ***Inaugural Lecture 1 (K.U.Leuven):*** Novel Study Designs for Treatment Strategies that Reflect Actual Clinical Practice
- ***Lecture 2 (UHasselt):*** Synergy Trial (accounting for treatment discontinuation)
- ***Lecture 3 (EORTC):*** Pursuit Trial (assessing length of infusion)
- ***Lecture 4 (Louvain-la-Neuve):*** Covariate adjustment
- ***Lecture 5 (UHasselt):*** The use of double robustness and establishing causality

Talks will be broadly announced, and members from academia, the government (regulators), and the industry will be welcomed.

The series of lectures will be made part of the doctoral program in biomedical sciences of K.U.Leuven and of other universities that are interested in this concept, ensuring that young researchers are encouraged to attend.

Biography

Professor Tsiatis graduated from Berkeley in 1974 in statistics. His advisor was Jerzey Neyman, one of the founders of modern statistical theory. He held professorships at the Universty of Wisconsin, Full Professorship at Harvard School of Public Health and the affiliated Dana-Farber Cancer Institute, and is currently Full Professor at North Carolina State University. Through profound contributions in research, education, and consulting, his impact on medical statistics and clinical trials (in particular in oncology and

HIV) has been tremendous. He is one of the few world leaders in the successful combination of deep statistical methodology with state-of-the art biomedical research.

The **research** of Prof. Tsiatis covers various areas. First, in survival analysis, he has developed the definitive large-sample theory of the Cox regression model. His 1981 *Annals in Statistics* paper has been cited well over 200 times. Second, in longitudinal data analysis, he has contributed seminal papers to surrogate-marker theory in clinical trials and to the joint modeling of longitudinal and survival outcomes. Third, he is one of the founders of group-sequential trial methodology. Fourth, he has contributed importantly to the theory of semi-parametric estimation theory. The practical consequence of his research is that a variety of complex designs can be implemented in clinical and epidemiological studies, while allowing for appropriate and computationally feasible analysis strategies. This shows, among other things, by the fact that his research is published in both the top medical statistics as well as medical journals. He has been awarded several prizes: (a) elected member of the International Statistical Institute; (b) elected fellow of the American Statistical Association and of the Institute of Mathematical Statistics; (c) Alumni Outstanding Research Award from North Carolina State University; (d) MERIT award from the National Allergy and Infectious Diseases Council; (e) named chair: Drexel Professor of Statistics at NC State University. Professor Tsiatis is Editor of Biostatistics, one of the top-ranked journals in probability and statistics. All of his research is published in top journals.

Turning to **education**, Prof. Tsiatis is a truly excellent teacher. He received many teaching awards: (a) Margaret Drolette Faculty Teaching Award of Harvard; (b) Teaching Citation of Harvard; (c) Rupert Miller Distinguished Lecturer at Stanford; (d) Greenberg Distinguished Lecturer at the University of North Carolina. His 2006 book (Springer, semi-parametric theory and incomplete data) testifies of his pedagogical qualities. As for **consultancy**, he frequently advises the Food and Drug Administration, and is advisory board and monitoring committee member for numerous clinical trials.

All of these extraordinary qualities ensure that Prof. Tsiatis will surely pay a successful visit to Belgium. His didactical qualities constitute an important factor of success in the effective communication of and interaction about his top-quality research.