



# International Indian Statistical Association (IISA)

## Newsletter, Spring 2009

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Dear Members,

Spring greetings!. It is my pleasure to present the spring issue of the IISA Newsletter. I hope you will find many interesting and useful items as you browse through it. If you have any news to share, please do forward them to me. As always, your feedback is very important and I look forward to your comments and/or suggestions.

Thank you all who contributed to this newsletter.

With best wishes,

Veera Baladandayuthapani  
Newsletter Editor, IISA

[veera@mdanderson.org](mailto:veera@mdanderson.org)

# Request for Membership Renewal and Information Update

Dear Member,

IISA Executive Committee would like to thank you for the generous and continuous support. The greatest asset of this association is its members. Last year we have grown as an organization and we appreciate and thank you for all the help. Needless to say, we are in need of your continued support. As the JSM approaches, we are starting the Membership Renewal Drive.

We look forward to welcoming many new members this year. You can help us to grow. To strengthen IISA please tell your colleagues about IISA and nominate them for IISA membership. Together, we can continue to improve the IISA and advance its cause.

If your membership is going to expire on June 30, 2009 or currently in delinquent status, renew it now. Please consider to become a life member. Life membership is only USD 300 (for US residents) and INR 1500 (for resident Indians.) I am looking forward to welcoming you as a returning member to the IISA. If you have any questions please feel free to contact us ([treasurer.iisa@gmail.com](mailto:treasurer.iisa@gmail.com)). For your convenience, the IISA membership form is attached at the end of this newsletter. Please send your check and application form to: Subrata Kundu/Sudip Bose, Department of Statistics, George Washington University, Washington, DC 20052.

Your help is needed in keeping the membership database accurate and up to date. Please update your membership records - If there are any changes please send us your new e-mail address, affiliation, phone number etc. Also, if you know of someone who is a member but is not receiving our newsletters please let us know of his/her current contact address. Thanks again for your continued support of the association.

Subrata Kundu & Sudip Bose,  
Treasurers, IISA  
[treasurer.iisa@gmail.com](mailto:treasurer.iisa@gmail.com)

## Profile of a new life member: Dr. Sally Morton



Sally C. Morton, PhD, joined RTI in 2005 as vice president of statistics and epidemiology. Previously, Dr. Morton was head of the RAND Corporation Statistics Group from 1995 to 2002 and held the RAND endowed chair in statistics from 2000 to 2005. From 1997 to 2005, she was co-director of the Southern California Evidence-based Practice Center. Her methodological interests include the use of meta-analysis in evidence-based medicine, the sampling of vulnerable populations, and statistical methods for health services research. She is an editor of *Statistical Science* and served as an associate editor for the *Journal of the American Statistical Association* and the *Journal of Computational and Graphical Statistics*. Dr. Morton is a fellow of the American Statistical Association and of the American Association for the Advancement of Science. Dr. Morton received her PhD in Statistics from Stanford University, an MSc in Statistics from London School of Economics, an MS in Operations Research from Stanford University and BS in Mathematical Sciences from Stanford University.

## Profile of a new life member: Dr. Arvind K. Shah



I am presently the Head of the Medical Communications Statistical Support Group within Clinical Biostatistics Organization at Merck Research Laboratories at Rahway, New Jersey. The group that I am leading provides statistical support for secondary publications and presentations for all Merck drugs and vaccines. I joined Merck in 2001 as a Director within Clinical Biostatistics.

Prior to joining Merck, I was a full professor of Statistics and the Director of Statistical Support Unit for the Comprehensive Sickle Cell Center within the College of Medicine at the University of South Alabama. I received Scholar of the Year Award at the University for 1991-92. I joined University of South Alabama after completing my Ph.D. in Statistics from Oklahoma State University in 1976.

I have authored or coauthored over 90 papers published in refereed statistical and applied scientific journals. I have given research presentations and have taught short courses here in the US and abroad. I have also served as a statistical consultant to researchers from academic, legal, private and governmental organizations. I served as the President of the Princeton-Trenton Chapter of the ASA for 2006-07 and am presently serving the Chapter as the past-president.

# Practice of Statistics: a government perspective



As some of you may not know me, I would like to very briefly introduce myself to you. My name is Ram Tiwari and I am the current president-elect (incoming president for 2010) of the International Indian Statistical Association (IISA). I obtained my Ph.D. from the Florida State University (with Professors J. Sethuraman and D. Basu as advisors). I joined the Office of Biostatistics (OB), Center for Drug Evaluation and Research (CDER), FDA, in April 2008 as Associate Office Director for Statistical Sciences and Policy. Before coming to the FDA, I spent about eight years at the National Cancer Institute, NIH (2000-2008), and over twenty years in academia (UNC Charlotte, 1986-2000; IIT Bombay, 1982-1985; and UC Santa Barbara, 1981-82 & 1984-85). My current email address and phone number are: ram.tiwari@fda.hhs.gov, 301-796-4084 (work).

As the incoming president of IISA, I welcome you and urge you to please invest in this association in whatever ways you can, including through serving on IISA committees, organizing sessions at the IISA sponsored conferences, and inviting your colleagues to become its member. IISA has come a long way under the leadership and hard work of its current and past presidents and other office bearers. I thank them for their valuable service to IISA.

Regarding what I and other statisticians do and what are the career opportunities for statisticians at the FDA, I would encourage you all to read a couple of articles; one from June 2008 issue of AMSTAT NEWS that talks about hiring at the FDA and another more recent article entitled Statisticians at the Food and Drug Administration written by Drs. Robert O'Neill, Greg Campbell, and Henry Hsu that appeared in the October 2008 issue of AMSTAT NEWS. The OB/CDER, with six Biometrics Divisions, houses more than 150 statisticians and is most likely the largest group of statisticians in the World. The statisticians in OB/CDER are involved in all aspects of approval of the drug products—from the design and evaluation of clinical trial plans to the evaluation of final reports (based on the analysis of safety and efficacy) and labeling of the approved drug products. Most of the statisticians in OB/CDER are U.S. citizens (in government positions), but there are several noncitizens and permanent residents hired as Staff Fellows and hired through other hiring mechanisms. The Indian American group of statisticians at FDA is large, and several of them are in key positions such as Team Leaders, Division Deputy/Directors and Branch Chiefs. The FDA has initiated several new initiatives to advance its mission under the Reagan-Udall Foundation established in 2007 and has also started a new FDA Com-

missioners Fellowship program, which provides an opportunity for health professionals and other scientists including statisticians to receive state-of-the-art training for regulatory review/research and experience at the FDA. For information about this program, visit the website: <http://www.fda.gov/commissionersfellowships/default.htm>

During my tenure at NCI, I served as a Program Director and oversaw the administration of NCI's grants portfolio in Biostatistics. For those who are interested in applying for the NIH-type grant funding, I encourage you to visit the website: <http://statfund.cancer.gov> and read the articles and presentations on funding available at this site.

Please feel free to write to me or to any of IISA's current officials with any suggestions that can help us to improve the visibility and functioning of IISA and also for its future activities. The bottom line is that IISA is your association and you ought to be involved in it. I am looking forward to working closely with you in coming years.

Best regards,  
Ram Tiwari

# Practice of Statistics: an industry perspective



Statistics, as a profession, has received immense attention in the last month as a result of a recent publication in Wall Street Journal (1). This article summarized the “Best” and “Worst” professions according to five criteria inherent to any profession: environment, income, employment outlook, physical demands and stress. It was extremely encouraging to see “statisticians” rated as No 3 in the “Best Jobs” list after mathematicians and actuaries. A reference to this article has appeared in AmStat News as well as in a recent article (2) in the current issue (Feb 2009).

As is well-known, statistics affects one’s daily life and statisticians play a key role in almost every area of specialties, academia to industry, as subtly noted by Sir David Cox, in his quote “A career in statistics offers a unique range of opportunities and challenges, ranging from deep involvement in specific fields of application to the study of puzzling conceptual and mathematical issues”. As noted in ASA’s Careers in Statistics brochure (page 3), statisticians are involved in decision making in: business, physical sciences, health and medicine, Government and Environment, besides being researchers and teachers. Over the years, the role of statistics has evolved from “little use” to “strategic use of statistics and statistical thinking” that is prevalent in the current times. As this is expected to grow, statisticians have an important role to play in every industry, starting from setting up experimental design initially to drafting a final statistical report with statistical conclusions supporting the original hypothesis. Currently (and beyond), statisticians are considered as “equal” partners with other scientists and developers who are involved in the basic research and development. For the three major areas where statisticians contribute, Business, Government and Higher Education, one can include the following institutions and groups under each category (only few are listed below):

Business Pharmaceuticals Manufacturing Power and Energy Market Research Banks Insurance Government Food and Drug Administration Bureau of Labor Statistics Census Bureau Internal Revenue Service Environmental Protection Agency Homeland Security Department of Agriculture State Government Offices that include o Education o Parks, Recreation and Tourism o Budget and Control Board Higher Education Academia Hospitals/Medical Institutions Consulting

In the categories mentioned above, two of the major employers of statisticians are the

pharmaceutical industry and Food & Drug Administration (FDA) which are explored further below:

## Pharmaceutical Industry

Pharmaceutical industries are one of the largest employers of statisticians in the Western world, and with the global market, the employment opportunities are now extended to other parts of the world. Though most of the large pharmaceutical industries deal with small molecules as their primary business drivers, these industries have already started expanding their business objectives to include large molecules that are mostly investigated in Biotechnological firms. In addition to small molecules and biologics, there are several industries that deal with developing and marketing medical devices.

Though the statisticians who are employed in the pharmaceutical industries are designated "clinical trial statisticians", they perform many other roles that go above and well beyond clinical trials. These roles are played under an arduous set of process that spans from discovery to marketing and require a wide variety of statistical skills. The entire spectrum of statistical activities in a pharmaceutical industry include: drug discovery, three phases of clinical trials, regulatory support, genetics, portfolio management, toxicology, designing compassionate use and post-marketing studies, involvement in publications, process improvement, pharmacy and production, PK/PD modeling and simulation, Outcomes research and evidence based medicine and marketing support. Though the range of techniques used by the statisticians in these areas may vary in concept and depth, they are considered to be equal partners with basic research, clinical and regulatory scientists in an environment that is highly regulated by the government as well as guidelines (ICH E-9 document).

Whether it is pre-clinical studies (animal experiments) or clinical studies (studies on humans), statisticians get to involve in design of experiments, data collection and statistical analyses as part of the development strategy, they are also considered to be "thought leaders" and provide statistical thinking throughout the life cycle of a pharmaceutical product. Statisticians provide their expertise in designing and analyzing data from clinical trials to assess the effectiveness and safety of experimental drugs. With regard to clinical trials on humans, statistical expertise is required in all four phases of clinical trials: Phase I (studies on healthy volunteers), Phase II (small studies on patients), Phase III (confirmatory large studies on patients) and Phase IV (post-approval studies). They are also involved in parallel developments in other disciplines such as epidemiology, genomics, biomarker development, and risk management to name a few, and expand their expertise to the entire life cycle of the product.

Like other industries, statisticians work in a team-based environment in pharmaceutical industries. Statisticians with both Masters and Ph.D. level background are employed by

most of these firms. A degree in Biostatistics is not a must but background in courses such as survival analysis, categorical data analysis, linear models and basic programming (SAS, R and others) could prove to be very beneficial. Other necessary competency and skill set that might have to be developed on the job include: communication, collaboration and team work, non-quantitative skills (eg, biology, regulations) and leadership. Though, as a graduate student, one might learn certain basic consulting skills in a consulting course or while supporting a consulting lab within the department, the human side of consulting and team work might have to be part of on-the-job training and, the statisticians will be encouraged to constantly and consciously develop these skills to be successful in the industry.

## **Food and Drug Administration (FDA)**

FDA is one of the organizations within the Department of Health and Human Services. At FDA, there are currently six different centers of various functions for evaluation of food, drugs and cosmetics. They are: Center for Drug Evaluation and Research (CDER), Center for Biologics Evaluation and Research (CBER), Center for Devices and Radiological Health (CDRH), National Center for Toxicological Research (NCTR), Center for Veterinary Medicine (CVM) and Center for Food Safety and Applied Nutrition (CFSAN).

Statisticians are employed throughout FDA. For example, at CDER, there exists an Office of Biostatistics within Office of Pharmacoepidemiology and Statistical Science and the statisticians in this office are considered to be the regulatory counterparts for pharmaceutical industry statisticians. As per the guidelines (eg, 21 CFR Parts 50, 56, 312, and 314), the pharmaceutical industries who are interested in marketing drugs, biological products or medical devices, are required to submit a comprehensive package containing evidence of effectiveness and safety of the underlying product accumulated from adequate and well-controlled studies to FDA for approval. The FDA statisticians in collaboration with their clinical and regulatory colleagues will evaluate the submission for confirmation of evidence prior to approving the product. As in the industry, the FDA statisticians also have similar skill set and are treated as equal partners by their regulatory colleagues. Like their industry counterparts, FDA statisticians are also involved in four major categories that require intense statistical expertise: clinical study design, efficacy and safety assessment of clinical studies, support to drug approval and labeling and developing guidance documents. More details about what do FDA statisticians do and who they are can be found in (3).

### **Additional Details**

As a service to its members, ASA supports career opportunities and provides valuable information in their website (5). This website contains wealth of information regarding career resources, salary information, JobWeb containing postings by job seekers and employers and plethora of details pertinent to careers in Statistics.



## References

1. <http://online.wsj.com/article/SB123119236117055127.html>
2. <http://www.amstat.org/publications/amsn/2009/february.cfm>
3. <http://www.fda.gov/cder/Offices/Biostatistics/default.htm>
4. <http://www.amstat.org/careers/index.cfm>
5. <http://www.amstat.org/careers/index.cfm>

## About the Author:

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# Opportunities in Academia for Young Statisticians



The preliminary report of the 2008 Annual Survey of the Mathematical Sciences in the US (conducted by the American Mathematical Society, AMS) shows that about 20% of students completing a dissertation in probability, statistics or biostatistics took jobs in academia in the US last year. Some of these undoubtedly landed a tenure-track (TT) position at a Research 1 (R1) university. For many of us, these positions are at least vaguely familiar since we have earned our degrees in at a place where faculty publish lots of research, work to get grants, direct students and teach. In a typical TT position at an R1, junior faculty (assistant professors) have some teaching duties and are also expected to develop a research program, publish, apply for grants and after a few years, begin directing (or co-directing) students. Hopefully, administrative duties are kept to a minimum for those in the tenure years to allow them to build up their research record and teaching qualifications to earn tenure. Students, if you've never spoken to a faculty member in such a position, I encourage you to do so. It may be interesting to find out how they spend their time and what they like or dislike about their jobs.

In the AMS survey, far more students were reported to have taken a job at a 4-year school or other type of academic institution than in a department offering a Masters or PhD degree. For students who are interested in doing a lot of teaching and possibly focusing on statistics education, curricular development, or other aspects of undergraduate training, consider TT positions at four-year institutions that have this focus. Faculty responsibilities may be more variable in these positions than they are across R1 institutions. You may be teaching three to four classes per semester, doing some research and/or taking on administrative duties. Some faculty at these institutions do continue to conduct theoretical or methodological research, but that may not be the only way to meet tenure expectations. The research expectation may allow for publishing less (in quantity) than at an R1 institution and for publishing papers in good journals that are outside of the traditional top tier theoretical/methodological statistical journals, such as in *Chance*, *The American Statistician* or in statistics education journals such as *Journal of Statistics Education*.

Speaking of statistics education, this field is continuing to grow and mature. I recently attended a workshop supported by an American Statistical Association (ASA) member initiative that discussed the need for graduate level training in statistics education. In fact, at North Carolina State, we have just hired a TT faculty member to specialize in statistics

education research. This is not the same as a position with a focus on teaching. Statistics education, as a field, includes the importance of good teaching, sharing pedagogical techniques, curricular development, and teacher training, but statistics education research involves conducting research on how we teach and learn statistics. We expect that the research program of this faculty member will be more of the latter, though it may naturally include some of the former. There are faculty at many academic institutions also conducting high quality statistics education research. However, the position at NC State is unusual (though maybe not unique) in that the expectation from the start is that the faculty members research will be in statistics education. I doubt you'll see many of these positions cropping up next year, but I do expect that this field will continue to grow and more of these will be coming to a department near you! In speaking about statistics education, I must mention to this audience in particular, that this is a field in need of diversity! In the US, the statistics education field is dominated by statisticians who were born in the US. I would love to see more involvement of international statisticians, especially those who may have come up through different educational systems and may bring fresh perspectives.

Another opportunity in academia is a post-doctoral appointment (post-doc). In the last 15 years, post-docs have become more common in statistics. Of course, they have long been the standard for fresh PhDs in many other areas of science. Similar to post-docs in other sciences, these may be research intensive positions focused on a particular grant and usually last 1-3 years. Some people use post-docs as a way to get more research experience and build a resume of publications before applying for other academic positions.

Other post-doc positions may be more of a starter academic position. These kind of positions may also go under the title of Visiting Assistant Professor. Responsibilities may include some research (along the lines of developing your own research program) and a light teaching load, similar to a tenure-track assistant professor position at an R1, but without the long-term commitment from either side. This type of position may be good for PhDs who are not quite ready for prime time. Perhaps you weren't able to produce many publications before graduating or you aren't sure that academia is for you. I, myself, took one of these positions. I was supported by NC State Statistics Departments NSF VIGRE program (Vertical InteGration of Research and Education). I had research and teaching mentors and stayed in this position for one and a half years. I found that academia really was for me, but not the TT appointment I had been aiming for, which brings me to one more type of academic position you may find appealing.

While in my post-doc at NC State, I applied for a non-tenure track (NTT) position that came open. I am currently a Teaching Associate Professor. NTT positions sometimes have a certain stigma attached to them, but I love my job! I recently wrote about it in the *Amstat News* (October, 2008). In short, I am not on the tenure track. I and my NTT colleagues have responsibilities for teaching, curricular development, teaching assistant training, administrative duties, advising and directing students and yes, even research. My

position has allowed the Department and me great flexibility in creating a collection of responsibilities that benefit the Department, the University and the profession, and suit my strengths as well. I do not believe you will find a position just like mine at many universities, but I do think that atypical positions are growing in the US. Under the NTT category, some departments also have positions that are faculty positions with 100% responsibility for research. These are typically soft-funded positions and are supported by a number of grants. These are more common in biostatistics departments. I encourage fresh PhDs and departments to be open to new types of positions that may be framed as NTT positions.

Opportunities in academia come in many varieties. For the most part, they share the aspect of shaping the training the community of consumers and producers of statistics, which is nearly everyone. That is an important duty of our profession! You may have noticed that several of the positions I mentioned exist at NC State (TT, NTT, post-docs) and I am proud to be in a department with such a commitment to the profession. There are many departments—statistics, biostatistics, mathematics or other—that are looking for good faculty and where you can make valuable contributions to the field of statistics, and enjoy what you are doing while you are at it.

## References

Arroway, Pam. What does a Teaching Associate Professor Do? *Amstat News*. October 2008.

Phipps, Polly, Maxwell, James W. and Rose, Colleen. 2008 Annual Survey of the Mathematical Sciences (First Report). *Notices of the AMS*. February, 2009. Vol. 56, No. 2. pp. 257-267.

## About the Author:

Pam Arroway received her PhD in Statistics from Iowa State in 1999. She joined the Department of Statistics at North Carolina State University shortly after graduation and has been there ever since. She is currently Assistant Department Head and Co-Director of Graduate Programs for one of the largest, oldest and best statistics programs in the country. Her current interests are in pipeline, mentoring and workforce issues in the field of Statistics, as well as Statistics Education.

# Nomination Call for the IISA Young Researcher Awards

The IISA Award Committee is soliciting nominations for the Young Researcher Awards in two categories: (a) Theory and Methods, (b) Methods and Applications.

The awards will be presented at the IISA-India Joint Statistical meeting in Visakhapatnam, January 4-8, 2010. The nominated candidates

1. must have made significant contributions of high quality in category (a) or (b),
2. should be under the age of 45 years by December 31, 2009,
3. must be a current member of IISA. The nomination package should contain a cover letter explaining the importance and quality of the contributions by the candidates, along with a recent CV, three supporting letters of nomination and other pertinent supporting materials.

The package should be sent electronically to the chair of the IISA Award Committee to Marepalli Rao at [raomb@ucmail.uc.edu](mailto:raomb@ucmail.uc.edu) by September 15, 2009.

The members of the committee are Arup Bose (India), Jayant Deshpande (India), Ravi Khattree (USA), Mani Lakshminarayanan (USA), Marepalli B. Rao (USA, Chair), and Rajeshwari Sridhara (USA).

## Other news

- **Professor A. K. Md. Ehsanes Saleh honored**

The North South University (NSU), Bangladesh and Carleton University, Canada jointly organized an international conference on ‘Recent Development in Statistical Sciences in Bangladesh, held at the Bangladesh-China Friendship Conference Centre in Dhaka, Bangladesh during 26-27 December, 2008. The conference honoured A .K . Md . Ehsanes Saleh, Distinguished Research Professor & Professor Emeritus , Carleton University, in recognition of his outstanding contributions in the development of statistical sciences through his pioneering research, outstanding supervision of PhD students and postdoctoral fellows, and exceptional professional services via organization of international symposia and editing special volumes and books, and journals over the last 4 decades.

The Governor of Bangladesh Bank (Central bank), Dr Salehuddin Ahmed(chief guest); President of Bangladesh Academy of Science, Professor M Shamsher Ali(special guest)



and Chair of Board of Governors of NSU, Mr Abdul Awal spoke in the inaugural session and welcomed Professor Saleh to be a part of the conference. The Chair of the Steering Committee and VC of NSU, Professor Hafiz G A Siddiqi; Chair, International Scientific Committee, Dr Shahjahan Khan; Chair, Executive Committee Dr Abdul H Chowdhury welcomed the international and local participants of the conference .Before Professor Saleh welcomed all the participants collectively ,a video slide show of his career was shown to the audience .At the concluding part of the inaugural session ,Dr.Salehuddin Ahmed (Chief Guest) presented a crest of honor to Professor A .K.Md .Ehsanes Saleh while his wife Shahidara Saleh and grand daughter Sarah Alam participated and watched it with pride . In the closing session of the conference , held in Sarina Hotel with lumptuous dinner for the participants and guests ,chief guest Professor Nazrul Islam, Chairman of University Grants Commission presented a crest of honor to Professor A .K .Md .Ehsanes Saleh . Professor Munir Ahmed spoke in the session on behalf of the international participants.

Out of over 120 papers, 85 were accepted for presentation in the conference. About 200 delegates from 15 different countries including Australia, Bangladesh, Canada, Indonesia, Malaysia, Iran, Kuwait, Pakistan, Libya, Singapore, UK, and USA participated in the conference. Most of the contributed papers were presented by young academics and researchers from various public and private Universities in Bangladesh. The proceedings of the conference have been published. Some selected papers presented in the conference would be considered for publication in the Journal of Applied Probability and Statistics (JAPS) after peer-review.

The event received significant attention from the local printed and electronic media in spite of prescheduled national election on 29 December 2008. A full-page coverage of the conference was published in a national daily, the News Today, highlighting the importance of the event and its scientific and national benefits. The wide ranging role and applications of Statistics in many different aspects of life were focused in a popular article on Statistics: From Data to Decision and Development published in the News Today as well as in the conference booklet. Several national dailies also published pre

and post event news on the conference.

The conference presentations covered many areas of current Statistical research and applications such as statistical inference, distribution theory, probability models, stochastic process, survival analysis, biostatistics, bioinformatics, epidemiology, reliability theory, quality control, sampling methods, statistical computing, Bayesian analysis, time series, econometrics, demography, robust methods, Monte-Carlo methods, statistical education, financial mathematics, forecasting, actuarial science, environmental statistics, economic statistics, official statistics, multivariate analysis, operations research, spatial analysis etc.

The conference paid deepest respect to late National Professor Qazi Motahar Hosain and Shaheed Professor Moniruzzaman for introducing the discipline of Statistics in the then East Pakistan (now Bangladesh) in the early fifties. Other pioneering Bangladeshi Statisticians who participated and recognized in the conference are M Obaidullah, M G Mustafa, Anwar H Talukder, Kazi S Ahmed, and Sultan Ahmed.

- **Openings for Biostatisticians at Cytel Inc., Cambridge, Massachusetts**

Join the world leader involved in the design, interim monitoring and software development of adaptive clinical trials. This is one of the most exciting advances in clinical trial design in the past 20 years. If you have a Ph.D in statistics or biostatistics, possess an entrepreneurial spirit, and are excited at the prospect of working at a dynamic company involved in state-of-the-art research, development and implementation of new ways to run trials, we want to talk to you.

Prior clinical trials experience is helpful but talent, enthusiasm and excellent communication skills are more important. Familiarity with Bayesian methods, including WinBUGS, is a plus. At Cytel you will grow professionally through consulting interactions with biopharmaceutical clients and through participation in the development of breakthrough software that is helping leading companies, government agencies and research centers change the way clinical trials are designed and conducted.

Cytels software products, East TM, StatXact TM and LogXact TM, are unique, award winning design and analysis tools used by almost every major bio-pharmaceutical company, as well as academic research sites and the FDA.

As a leader at Cytel, you will be responsible for: (1) Design and Analysis of Adaptive and Group Sequential Clinical Trials; Frequentist and Bayesian (2) Interim Analysis of Flexible Designs (3) Development of State-of-the-art Software (4) Delivering Statistical Software Training at Pharmaceutical Companies (5) Consulting and Development of Client Relationships

Salary: Competitive Salary + bonus and equity To apply, please send a resume and cover letter to [biostatistician@cytel.com](mailto:biostatistician@cytel.com) with subject line: Biostatistician. Email applications only, please.

## 2010 IISA Conference



**International Indian Statistical Association Joint Statistical Meetings and International Conference on Statistics, Probability and Related Areas, Andhra University, Visakhapatnam, January 4 -8, 2010**

The Joint Statistical Meetings organized by the International Indian Statistical Association (IISA) in partnership with the American Statistical Association (ASA) as well as the Statistical Associations in India will be held at Andhra University, Visakhapatnam, January 4 -8, 2010. For information about this international conference on Statistics, Probability, and Related Areas, please contact: S. Rao Jammalamadaka (Organizing Committee Chair) (rao@pstat.ucsb.edu), N. Balakrishnan (Program Committee Chair) (bala@mcmaster.ca), K. Srinivasa Rao (Local Organizing Committee Chair)(ksraoau@yahoo.co.in). The pertinent information is available at <http://www.stat.osu.edu/hnn/IISA.html>

## International Conference on Frontiers of Interface between Statistics and the Sciences,



**December 31 2009 – January 2 2010 at Hyderabad, India**

The conference is in honor of C.R.Rao, the living legend who will be attaining the age of 90 in 2010. The objective of the conference is to highlight the importance of statistics in knowledge discovery in the sciences. There will be sessions on a variety of topics with the participation of 3 or 4 speakers in each. All contributed papers will be in the form of poster presentations. Two prizes of Rs.5000 each will be offered to authors of the best poster presentation as judged by a panel of experts. There will be a registration fee of 100+ 25 ( for the new year eve banquet) for participants from advanced countries and Rs.2,500 + Rs.500 (for the banquet) for others. The last date for sending the registration fee is 15 October, 2009. There will be additional charges for those registering later and those coming with a spouse. The registration fee will cover, the cost of conference material, three lunches and tea breaks. Accommodation will be available in the price range of 20–100



for those who register by 15 October 2009. Details will be posted in the website under preparation. Those requiring advance information are requested to contact Dr.S.B.Rao (sid-danib@yahoo.co.in) or Dr.C.R.Rao (crr1@psu.edu). The topics include new areas such as biometrics, bio-informatics, machine learning, design of experiments and orthogonal arrays, cryptography, data mining, technometrics, astrostatistics etc., in addition to current areas of Statistics and their applications. This conference is organized by C.R. Rao Advanced Institute of Mathematics, Statistics and Computer Science and sponsored by International Indian Statistical Association (IISA), and CMS-DST, GOI. More details can be found at: <http://www.stat.osu.edu/hnn/hydstatconf2010.html>

## Conference on Frontier of Statistical Decision Making and Bayesian Analysis — In Honor of James O. Berger



March 17 - 20, 2010 University of Texas at San Antonio, San Antonio, Texas, USA

In honor of Professor James O. Berger on his contributions to Statistics community, a conference entitled "Frontier of Statistical Decision Making and Bayesian Analysis" will be held in downtown campus of the University of Texas at San Antonio, from Thursday March 18, to Saturday (noon) March 20, in 2010. Prior to the conference on Wednesday, March 17, short courses on various statistical topics will be offered. The conference consists of plenary, invited, and poster sessions. Plenary speakers include Professors Donald Berry, Lawrence Brown, Persi Diaconis, Stephen Fienberg, and Alan Gelfand. The conference will provide an overview of the past, present and future developments of the field of "Statistical Decision Making and Bayesian Analysis".

For more conference information, please contact Keying Ye ([Keying.Ye@utsa.edu](mailto:Keying.Ye@utsa.edu)) or visit the webpage <http://bergerconference2010.utsa.edu/>

# Seventh International Triennial Calcutta Symposium



The Calcutta Statistical Association and the Department of Statistics, Calcutta University will jointly host the Seventh International Triennial Calcutta Symposium on Probability and Statistics between December 28 - 31, 2009 at the Department of Statistics, Calcutta University, Kolkata, India.

The symposium will feature invited and contributory sessions on theoretical and applied statistics and probability. Interested participants are requested to contact the Convenor or visit the Web Site There is a website but that one does not have much information:  
<http://triennial.calcuttastatisticalassociation.org/sympAnnounce.php>

For further details contact the Convenor, Gaurangadeb Chattopadhyay at [caltri7@gmail.com](mailto:caltri7@gmail.com)

## 2011 IISA Conference at Raleigh

**NC STATE UNIVERSITY** The North Carolina State University (NCSU) at Raleigh will be the host for the 2011 IISA Conference in North America. The local organizing Committee consists of Sujit Ghosh, Subhashis Ghosal, and Sastry G. Pantula. See you all in NC in 2011!.

## The IISA Meetings: Past, Present, and Future

The past, present, and future IISA meetings are listed below.

Canada: Montreal (1996)	Canada: Hamilton (1998)
India: Delhi (2000-2001)	USA: DeKalb (2002)
USA: Georgia (2004)	India: Cochin (2007)
USA: Storrs (2008)	India: Visakhapatnam (2010)
USA: Raleigh (2011)	

# Report from the Treasurer

## Financial Report

Here is a short Financial report (as of March 6, 2009):

<b>IISA account balances</b>	
Checking Account (as of 03/06/09)	\$5,275.52
High Performance Money Market (as of 02/17/09)	\$42,712.22
<b>AIMSCS* account balance</b> (as of 01/14/09)	<b>\$46,364.61</b>

\*=C.R. Rao Advanced Institute of Mathematics, Statistics and Computer Science

## New Members

The following members joined us or renewed their membership recently. We welcome all new members to the IISA family!

## Life Members

Jaya P. N. Bishwal (University of North Carolina at Charlotte, NC)  
Debashis Ghosh (Penn State University, PA)  
Sayan Mukherjee (Duke University, NC)  
Sally Morton (RTI International, NC)  
Arvind Shah (Merck Research Laboratories, NC)

## Regular (Three year) Members

Ajit C. Tamhane (Renewal, Northwestern University, IL)  
Pankaj Choudhary (University of Texas at Dallas, TX)  
Makarand Ratnaparkhi (Wright State University, OH)  
Pulak Ghosh (Novartis Pharmaceuticals, NJ)

## India Chapter:

### Life Members

Uma C. Shankar (Rayalla University, Kurnool, AP)  
Subrata Chakraborty (Dibrugarh University, Assam)  
Govinda Seepana Rao (Director PG Courses, Andhra Pradesh)  
Ichcha Shankar Sharma (ISSA, DRDO)  
Goutam Saha (M.B.B. College, Agartala)  
Anil Kumar Ghosh (ISI, Kolkata)

### Regular (Three Year) Members

Maitrey Bhagat (GLSI BA, Ahmedabad)  
T. S. Krishnan (MU SIGMA INC, Bangalore)

Thank you all for your continued support!

## *Contacts*



Have some news to share with IISA members? Want to make a suggestion about the newsletter? Please contact Veera Baladandayuthapani ([veera@mdanderson.org](mailto:veera@mdanderson.org))

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**INTERNATIONAL INDIAN STATISTICAL ASSOCIATION**

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**MEMBERSHIP APPLICATION FORM (2008-2009)**

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Last Name: \_\_\_\_\_

First Name: \_\_\_\_\_

Title: \_\_\_\_\_

Affiliation: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Work phone #: \_\_\_\_\_

Home phone #: \_\_\_\_\_

Fax #: \_\_\_\_\_

Email: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## IISA Membership fees:

- **For Nonresident Indians**

Regular Membership:	{	\$25 US for 1 year,
		\$40 US for 2 years or
		\$50 US for 3 years
Life membership:		\$300 US
Student Membership:		\$5 US per year

Please make your check in US funds payable to: *International Indian Statistical Association*.

Return the completed form with the appropriate dues to:

Subrata Kundu/Sudip Bose  
Department of Statistics  
The George Washington University  
2140 Pennsylvania Avenue NW  
Washington, D.C. 20052  
Email: [kundu@gwu.edu](mailto:kundu@gwu.edu) or [sudip@gwu.edu](mailto:sudip@gwu.edu)

- **For Resident Indians (revised)**

Annual membership:	Rs. 100
2-year membership:	Rs. 150
3-year membership:	Rs. 200
Life Membership (Regular):	Rs. 1500
Life Membership (Retired):	Rs. 500

Membership benefits:

- 10% discount on IISA Conference fees
- Co-Sponsorship of Workshops (through IISA Resource persons from India and abroad, announcement in IISA newsletter and possible nominal financial support).

The membership fees may be paid by Demand Draft to *Prof. Kanwar Sen* at the following address:

Prof. Kanwar Sen  
115 Vaishali, Pitampura  
New Delhi 110088