



March 1, 2019

Volume 9 Issue 1



## President's Corner

Dear fellow KISSers,

I hope 2019 has been off to a great start for all of you! I am honored to serve as the third president of KISS and to be taking the baton from Mimi Kim, who led KISS over the past two years with amazing energy and dedication. For me to lead KISS successfully over the next two years, it is essential that I have a team of people who can support and complement me in the areas that I may fall short, such as detail orientation. To that end, I am very glad to introduce team KISS, officers who will be working with me throughout 2019 to serve on the KISS executive team: Executive director Kiseop Lee, who graciously agreed to continue to serve on this role; Treasurer Jong-min Kim<sup>1</sup>, a longtime dedicated treasurer; Communications Director Ryung Kim, who

spearheaded the KISS website upgrade last year and agreed to serve until his replacement is found<sup>2</sup>; and 2019 and 2020 KISS program officers Julia Kim and Dongjun Chung. In addition to the news that Mimi Kim will continue to serve on the executive team as past-president, I am so pleased to announce and welcome MoonJung Cho to the executive team as KISS president-elect. With this team of high caliber, I am cautiously optimistic about the prospects for KISS in the coming years. KISS has come a long way since it was officially registered as a non-profit organization back in 2010. Though a small group of ethnically Korean statisticians used to gather at JSM for many years prior to the official launch of KISS, it had never been perceived as a professional organization. With Dongsuk Choi's vision and determination, a small group of KISS

members took the bold step of embarking on an exciting journey about 10 years ago. Today, KISS is recognized as an international statistical association in the US and collaborates with other statistical associations such as ASA, ICSA, IISA, etc. KISS also co-sponsors conferences with other organizations and actively participates in conferences hosted by other organizations through facilitating organized sessions. As someone who has been fortunate enough to be on this journey from the beginning, I am still quite amazed with where KISS is now. Let's continue to carry the torch forward!

In last year's KISS newsletter, I solicited your input as I started to brainstorm key initiatives for me to focus on as KISS president. Since then, I have heard from a few members, mostly at JSM and other occasions, about their suggestions, challenges, and

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hopes. I thank all of you who have come to me to share your thoughts. I have done my best to take your ideas and suggestions into account in shaping my initiatives and implementation. That said, here are my initiatives as KISS president:

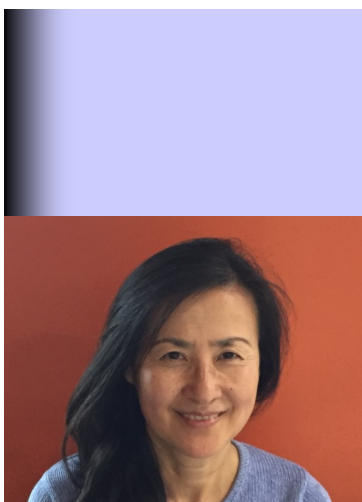
**Membership drive:** I feel strongly that though our membership has grown over the past years, there is still a lot more room for us to grow. How about launching a campaign to gain one new KISS member for each KISS member? Would you reach out to your fellow statisticians and encourage them to join KISS? KISS is still young

and has a long way to go before it can be an impactful statistical association. I have to acknowledge that we are not there yet, or in meeting our members' needs. I hope that you all have a perspective that we are planting seeds for KISS to become a long-term, sustainable, and impactful statistical association. If you are on board for that vision, it will call for your proactive participation. Please feel free to reach out to me should you have any suggestions or be willing to take on a certain role.

**Increasing recognition of KISS:** We should continue to have KISS visible on many

fronts, from JSM-invited or topic-contributed sessions to active collaborations with other statistical associations to building constructive relationships with public and private institutions. For example, we plan to have a joint statistics method symposium with Statistics Korea in October 2019. I hope that through this initial joint symposium, KISS will begin to position itself as a prominent statistical resource for Statistics Korea and other Korean public and private institutions.

**Supporting graduates and early career KISS members:**



This is one of the key initiatives taken by our past president, Mimi Kim, during her tenure. I fully support and am willing to carry this on as one of our key initiatives for the next two years. This year, KISS will give career development awards for young career KISS members. I am sure that there are many other ways to support our next generation KISS statisticians. To that end, I would like to ask my fellow KISS members to offer your suggestions for helping KISS members get better connected. And if you plan to attend the JSM in Denver this year, please also plan to attend the KISS annual meeting. I look forward to seeing many of you at JSM this summer.

Best wishes,

Don Jang, KISS President

KISS as a self-serving group. We stand on common ground with other statistical communities: what is good for KISS should be beneficial for the larger statistical community including ASA. At other professional meetings, I often see VIP nametags or VIP reserved tables. This isn't necessary for us, because every KISS member is a VIP. I believe that notion of self-importance is deceptive and only divides us. On this point, I feel very grateful to both Dongseok (founding president) and Mimi. By their own examples, they showed us how to serve the Society with humility.

### Letter from KISS president elect

Dear KISS members,

Wishing you a happy and fruitful New Year!

I feel honored to have been nominated and elected as president for Year 2021.

As president-elect, it will be my great pleasure to assist Dr. Don Jang as he leads KISS in the coming years. I've known and respected Don as a trusted colleague ever since I met him at the Korean Washington Statistical Society in 2001. I am welcoming this opportunity to work with and learn from Don (president), Mimi (past-president), other officers, and board members. As I thought about ways to get to know other members, I realized that I've invested very little of my time on social media. I will challenge myself and learn to reach out to you.

Our next annual meeting and dinner will be held at JSM2019 (Denver, Colorado). Please do come if you plan to attend the JSM this year. Finally, as I organize my thoughts for this message, G. K. Chesterton's remarks (from *Orthodoxy*) caught my attention. "Men did not love Rome because she was great. She was great because they had loved her." May we say the same thing for KISS. I wish people in future generation would say "KISS became great because members loved it as their own."

Warm regards,  
MoonJung Cho, KISS president-elect

You may get to know me a little more if I share some of my thoughts and wishes. KISS, still a small organization, could be immensely more flexible and attentive compared to a larger organization such as ASA. My JSM (Joint Statistical Meetings) experience is a good analogy. How I feel 'lost' at the JSM and then feel 'found' at the KISS meetings and dinner. Growth is a great thing and increase in membership is a sure sign that an organization is doing things right. But growth can also trigger alienation, distance, and indifference on the individual member side. At KISS where we share the same heritage (directly or indirectly), it should be much easier for us to relate to one another. The relationships we build at KISS are ones to cherish and to share with a larger community. I don't think our founding members ever envisioned

<sup>1</sup>We are seeking a new treasurer. Jong-Min Kim had served as KISS treasurer since 2011. We thank Jong-Min's longtime service to KISS.

<sup>2</sup>Let Don or Ryung know if you are interested in serving as KISS Communications Director.

## KISS Officers' Reports

### Financial report

FY 2017 Carry Forward was \$17,437. Incomes were membership fee \$1,880 and co-membership fee \$800. Expenses were PayPal fee \$90.17, Oregon business license renewal \$70, donation to National Institute of Statistical Science \$1,500, KISS Awards for 4 People \$2,000, and KISS website hosting fee \$486. With the total expense of \$4,146, 2018 balance was \$15,971.

### Election report

The KISS had its second Presidential election and elected Dr. Moonjung Cho, a research mathematical statistician at U.S. Bureau of Labor Statistics, as the President elect. Dr. Cho will start his term as the President Elect in Jan. 2019.

The Nomination and Election Committee was formed under Article 9 of the By-Laws, chaired by the Executive Director, Kiseop Lee. As appointed by the President, Mimi Kim, included Drs. Jonghyeon Jung (Univ. of Pittsburgh), Kyunghee Song (FDA), Sunhee Kwon (Onyx Pharmaceuticals, Inc.), and Julia Lee (Northwestern Univ.) served on the Committee. Open nominations from general members were sought after but all five nominated declined. The Committee nominated two more individuals based on potential for bolstering KISS' ability to reach out to peer professional societies including the Korean Statistical Society (KSS) and

statisticians in industry and government sections. Finally Dr. Moonjung Cho accepted the nomination and became the sole candidate. The Election opened on Dec. 7th and closed on Dec. 17th.

Dr. Moonjung Cho has worked as a research mathematical statistician for the U.S. Bureau of Statistics since her graduation in 2000. She also holds a master's degree in Social Work from Rutgers University. She is serving as a board member of Korean International Statistical Society and of the Korean American Mathematical Science Association. She was Chair of the ASA Conference on Statistical Practice 2017 Steering Committee and Executive Committee Chair of US-Korea Conference 2008 by Korean American Scientists and Engineers Association.

### Membership report

Total membership: 110 (Lifetime: 66, Annual: 24, Spouse: 1, Students: 18, KSS comember: 1) By affiliated institutions, 73 are in academia, 10 in government, and 8 in industry.

### Program Chair report

At 2018 JSM in Vancouver (Jul 28-Aug 2), KISS sponsored 2 topic-contributed paper sessions, "Advances in Multivariate Analysis for High-Dimensional, Complex Data Problems" (Organizer: Jeongyoun Ahn, University of Georgia, Chair: Nicole Lazar, University of Georgia), "Statistical Inference in Finance" (Organizer/Chair:

Kiseop Lee, Purdue University); and one contributed paper session, "Clinical Trials: Recent Advances in Design and Inference" (Chair: MinJae Lee, University of Texas McGovern Medical School).

At 2018 Fall Conference by The Korean Statistical Society (KSS) held from November 2-3 at Ewha Womans University, Korea, 3 KISS members (Danhyang Lee, Iowa State University, Grace Hyokyung Hong, Michigan State University, Donggyu Kim, KAIS) presented at an invited session sponsored by KISS: "Recent Advances in Multilevel, High Dimension, High-Frequency Data" (Organizer: Julia (Jungwha) Lee, Northwestern University, Chair: Seongjoo Song, Korea University).

### Members News

- Dr. Hongshik Ahn of Stony Brook University published a book entitled "A Mathematical View of Genesis". It can be found on Amazon.
- Dr. Asaph Young Chun at U.S. Census Bureau published a Special Section on responsive and adaptive survey design in The Journal of Official Statistics by Statistics Sweden. He published a book titled "Administrative Records for Survey Methodology" by Wiley (2019). He began his term in January 2019 as Program Chair of the ASA Survey Research Methods Section. He became the first Asian-American to lead both Social Statistics and Survey Research Methods Sections as Program Chair.

## Awardees at JSM 2018

We are proud of the two KISS members who became 2018 ASA Fellows: Dr. Jee-Hyun Lee, Professor at the Department of Biostatistics at University of Florida and Dr. Don Jang, Vice President and Director of the Center for Excellence in Survey Research at NORC. The four winners for the Outstanding Student Awards were Annie Lee, Dr. Hyung Park at Columbia University, Jaewoo Park at Penn State University, and HeeCheol Chung at University of Georgia.



## Upcoming Meetings

- The 2019 Spring Conference of the Korean Statistical Society will be held May 24-25, 2019 at Kangwon National University. More information about the conference can be found on the KSS website (<http://www.kss.or.kr/>). If you are interested in giving a talk, please send Dr. Julia (Jungwha) Lee your title and abstract by March 8th. KISS will organize an invited session which consists of three talks 30 min each.
- Joint Statistical Meetings 2019, July 27- August 1, Denver, Colorado. KISS sponsors one Invited Paper session ("*Making an Impact on Physical Activity and Sleep Research by Developing New Statistical Methods*") organized by Julia (Jungwha) Lee and chaired by Kwang-Youn Kim, Northwestern University) and one Topic-Contributed session

("Brushing Up Your Skills in Genomic Data" organized by Kwang-Youn Kim and chaired by Julia (Jungwha) Lee, Northwestern University. And two additional contributed sessions sponsored by KISS are under review. We competed for 9 slots with proposals submitted from organizations outside of the co-sponsoring societies.

- ICSA 2019 International Conference will be held December 20-22, 2019 at Zhejiang University, Hangzhou, PR China. One Invited Paper session is sponsored by KISS ("*Novel Statistical Approaches to Investigate Cancer Immunotherapy*") organized and chaired by Dongjun Chung, Medical University of South Carolina)
- 2019 International Indian Statistical Association conference will be held at IIT Mumbai, India

from December 26-30, 2019. If you are interested in giving a talk, please send Dr. Ryung Kim Lee your title and abstract by March 8th. KISS will organize an invited session which consists of four talks.

- The 30th International Biometric Conference will be held July 5-10, 2020 at Seoul, Korea.



## Member's Profile: Dr. Hyung G. Park, Outstanding Student Award

*Dr. Hyung Park is a Postdoctoral Fellow at the Department of Population Health in New York University. He recently received his PhD in Biostatistics at Columbia University. He received his B.A in Statistics at Korea University in 2010, M.S. in Biostatistics at Harvard University in 2013.*

I spent my high school years in a small town in Silicon Valley, as my father was a visiting scholar at a nearby university. I didn't realize it then, but it was a very peaceful town. In one class, I was asked a question: "what is it you plan to do with your life?" It was a very deep question. I wish I could write more, but I could only write: "I think I want to be a part of universe." After about 15 years, although I still may not have a concrete answer, I'm beginning to see why answering to that question could be difficult. One of the reasons may be that life is full of unknowns and uncertainties.

plex baseline effects of predictors not related to treatment, estimating a nonparametric interaction is generally a difficult task- this is because the systematic "noise" (the baseline effect of predictors) confounds/ dominates the "signal" of interest. How to determine the yardstick for separating and optimizing nonparametric interactions in the presence of an unspecified baseline effect was the key question of my dissertation.

As a side project, I worked on a measurement error model that uses high dimensional longitudinally observed data as predictors. Although the strategy of being simple/sticking to simple approaches under conditions of

When you're truly in the dark, the best-laid plans will be the simplest. When the data are noisy, "to paint with a broad brush, to think in broad strokes" might be a reasonable strategy. You can only draw shapes, lines, and boxes. That's good. The big picture is all you should be worrying about in the beginning, to get a sense of where to begin with. It's good to be comfortable with chance (noise) and using approximations, and eventually gather more data as we move on. And later on, I notice that a model that's too simple- for instance, a straight line- can fail to capture the essential pattern in the data. If the truth looks like a curve, no straight line can ever get it right.

In my dissertation, I worked on developing regression models for estimating interactions between a treatment

noisy predictors might be also reasonable, it does not mean that we cannot do anything to improve these simple approaches. If we estimate and utilize some patterns in the mismeasurements, we can estimate more accurate signals from data, that account for some of the uncertainties in the predictors at hand.

About 6 months into life as a postdoc, I mainly work with functional data, which I found very fascinating. Functional data is a rapidly emerging type of data. One of my current projects involves a statistical analysis of



variable and a set of predictors in their effect on outcomes, without restriction to a linear relationship. I found semiparametric/ nonparametric regression approaches for representing interaction very interesting, as these are frameworks that allow some key aspects of nonlinearity in interaction.

In precision medicine, often-times estimating treatment and pretreatment predictors interactions is of major interest. However, in the presence of possibly large & com-

plex baseline effects of predictors not related to treatment, estimating a nonparametric interaction is generally a difficult task- this is because the systematic "noise" (the baseline effect of predictors) confounds/ dominates the "signal" of interest. How to determine the yardstick for separating and optimizing nonparametric interactions in the presence of an unspecified baseline effect was the key question of my dissertation. As a side project, I worked on a measurement error model that uses high dimensional longitudinally observed data as predictors. Although the strategy of being simple/sticking to simple approaches under conditions of

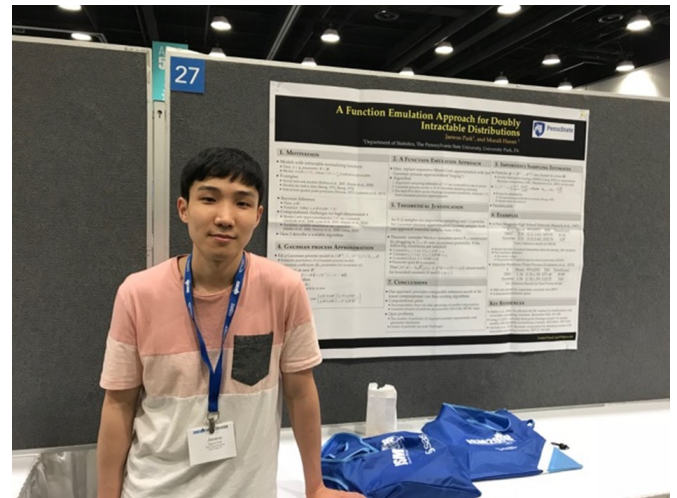
accelerometer data, one instance of physical activity measurement and quantification using wearable devices, which are becoming more and more ubiquitous. Accelerometry is used to collect continuous information on physical activity. My current research focuses on developing methods for estimating possibly nonlinear interactions between these activity profiles and an intervention variable in their effect on a health outcome. Understanding these interactions would be essential for the development of an effective intervention strategy.

## Member's Profile: Jaewoo Park, Outstanding Student Award

First, I would like to thank Review Committee for selecting my work for a KISS Student Paper Award. I am a fifth year PhD Candidate in the Department of Statistics at the Pennsylvania State University. Before coming to Pennsylvania State University I graduated with a B.A. in Economics and Applied Statistics from Yonsei University in 2013. I am currently working on my dissertation under the supervision of Dr. Murali Haran. My dissertation title is "Computational Methods for Intractable Likelihoods, with Applications to Infectious Disease Models."

My research focuses on developing computational methods for intractable likelihoods, statistical methods for infectious disease research, and modeling high-dimensional and non-Gaussian spatial data. Models with intractable normalizing functions are used widely, for example for modeling social networks and for studying the susceptibility of human cells to viral infections. Inference for these

order to better understand the mechanism of disease spread. I study rotavirus infection in Niger by fitting several variants of Susceptible-Infectious-Recovered compartmental models to hospital surveillance data. By comparing results across multiple models, I make predictions about the impact of vaccine introduction while accounting for uncertainties about the underlying transmission dynamics as well as noise/uncertainties in the data. This has practical implications, for instance in designing vaccination strategies. My work on infectious disease is based on collaborations with researchers at the Center for Infectious Disease Dynamics at Penn State.



models is complicated because the normalizing functions of their probability distributions include the parameters of interest. Existing algorithms are largely computationally feasible for only moderate to small sized datasets. I study the theoretical framework and practical implementation challenges for algorithms for such models. I have developed a new function emulation approach that provides computational gains

Modern statistical inference poses an entirely new set of challenges due to the complexity of physical and biological models used and the increasing availability of large data sets. In many of the problems I consider, the computational challenges make it infeasible to carry out the desired statistical analysis. I plan to develop new computational methods and modeling approaches to address such challenges and want to contribute to development of the field of statistics.

over existing methods by replacing Monte Carlo approximations to the normalizing functions with a Gaussian process-based approximation. I provide theoretical justifications for this method by examining the approximation error in terms of total variation distance.

In addition, I am developing statistical methods that combine biological models with observational data in

## 2018 KISS Annual Meeting at JSM

The 2018 KISS annual meeting was held at the Joint Statistical Meetings on the July 30 in Vancouver.

1. President Mimi Kim reported the last year's KISS activities on behalf of all officers.

2. ASA Fellows Talks: Donsig Jang, NORC, Jihyun Lee, University of Florida, Taesung Park, SNU 3. KISS 2018 Outstanding Student Paper Awards : Annie Lee (Columbia Univ.), Hyung Gyu Park(Columbia Univ.), Jaewoo Park(Penn State Univ.), Hee Cheol Chung(Univ. of Georgia)

4. Business items and announcements were made:

- Changes in leadership

- KISS JSM 2019 Program Chair: Dr. Dongjun Chung (Medical University of South Carolina), JSM invited session proposals for KISS sponsorship (8/31/2018)

- KSS spring/fall meetings, invited sessions
- 5. Career workshops  
2018: Joint interview skills workshop with KISS, IISA, ICSA, ASA, Writing workshop co-sponsored with NISS  
2017: Joint career workshop with KISS, IISA, ICSA, ASA  
2016: Leadership skill development workshop  
2015: Career development workshop
- 6. Dinner at Dae Bak Bon Ga Restaurant was sponsored by SK Hynix.



## Pictures from JSM 2018



## Call for Papers: Communications for Statistical Applications and Methods

### Dr. Chul H. Ahn

*Communications for Statistical Applications and Methods* is an official journal of the Korean Statistical Society and Korean International Statistical Society beginning in 2013. Abbreviated title is 'CSAM'. It contains original articles dedicated to application research in various fields of statistics and probability, or contributing to applied statistics through innovative data analysis and interpretation. However, articles dealing with

statistical education are also welcomed. The journal welcomes articles from all countries. Our objective is to increase the visibility of CSAM journal by growing its content and distribution. By continually raising the quality of the journal and thereby increasing the likelihood of citation, we are working hard to list this journal in Science Citation Index Expanded (SCIE).

We encourage all KSS and KISS members to submit pa-

pers via CSAM to reach this goal in the near future.

The journal accepts articles written in English and is published bi-monthly in January, March, May, July, September, and November. All of the manuscripts are peer-reviewed. CSAM welcomes only original research articles for the form of publication. For details about instruction for authors including manuscript preparation and submission, please visit <http://csam.or.kr>

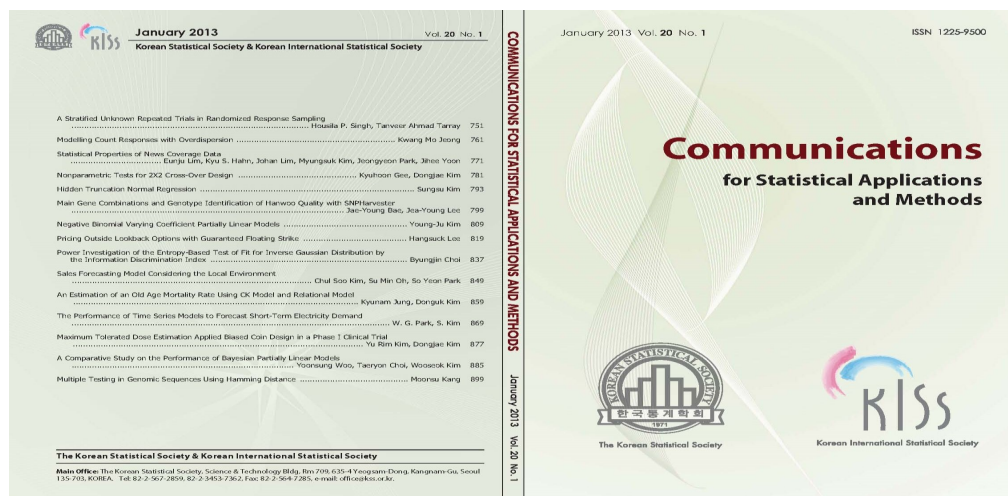
### Editorial Board:

Editor-in-Chief  
Seongjoo Song, Korea U

Co-Editors  
Chul H. Ahn, Food and Drug Administration  
Hyuncheol Kang, Hoseo U

Honorary Editors  
Wayne Fuller, Iowa State U.  
Donald B. Rubin, Harvard U.  
Grace Wahba, U. Wisconsin

*Communications for Statistical Applications and Methods* (CSAM), an official journal of the Korean Statistical Society and Korean International Statistical Society was listed in Emerging Sources Citation Index (ESCI) in the Web of Science Core Collection. As a result, CSAM will now be included in journal citation reports by Web of Science and its Impact Factor will be calculated for evaluation of journals.



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If you would like to write an article or have comments for KISS newsletters, please email to [info@statkiss.org](mailto:info@statkiss.org).

### KISS Officers:

President: Donsig Jang (NORC)

President-elect: MoonJung Cho (U.S. Bureau of Labor Statistics)

President-past: Mimi Kim (Albert Einstein College of Medicine)

Executive Director: Kiseop Lee (Purdue U.)

Treasurer: Jong-Min Kim (U. Minnesota at Morris)<sup>1</sup>

Communications Director: Ryung S. Kim (Albert Einstein College of Medicine)

Program chair (2018-19): Julia (Jungwha) Lee (Northwestern U.)

Program chair (2019-20): Dongjun Chung (Medical U. of South Carolina)

### KISS Board of Directors:

2019 – 2020

Dongseok Choi (Oregon Health & Science U.)

Jae-Kwang Kim (Iowa State U.)

Hokwon Cho (U. Nevada at Las Vegas)

Chul Ahn (U. Texas Southwestern Medical Center)

Chul H. Ahn (Food and Drug Administration)

2019 - 2022 (One more board member will be filled.<sup>2</sup>)

Kyunghee Song (Food and Drug Administration)

Jong-Hyeon Jung (U. of Pittsburgh)

Hyunsik James Lee (Westat)

Sunhee Kwon (ONYX Pharmaceuticals)

2019 – 2024 (Five new board members will be filled.<sup>2</sup>)

<sup>1</sup> We are currently seeking a new treasurer.

<sup>2</sup> We plan to fill Board members before 2019 JSM. Please send nominations (including self nomination) to Kiseop Lee, KISS Executive Director.

### **Become a KISSer!**

KISS website is at <http://statkiss.org>. The sign-up and renewal process is automatic. Members can sign-up or renew their membership on a rolling basis. Members can also edit their personal information such as email and affiliations. They can also opt-in to receive job posting announcements through email.

The website contains the information about KISS, news and events, job opportunities, upcoming and past meetings, and membership online registration. Please visit our website for more information.



Korean International Statistical Society