



4th International
and 16th Iranian
Genetics Congress

چهارمین کنگره بین المللی
و شانزدهمین کنگره ملی
ژنتیک ایران

Scientific report: GC2018



Seyed Javad Mowla
co-scientific secretary

Ann Ehrenhofer-Murray
co-scientific secretary

Mohsen Ebrahimi
executive secretary

May 2018



GC2018 in a glance

The preparation of the 3rd international and 15th Iranian genetics congress was started two years in advance, at the closing ceremony of the GC2016. During Iran exploring tour, the idea of a jointly organized congress was initially discussed with Professor Ann Ehrenhofer-Murray. Later on, the Iran and Germany Genetics Societies officially approved the proposed idea.

Unique features of GC2018

1. To promote international collaborations, the GC2018 was held jointly with the German Genetics Society. At this convention, Professor Ann Ehrenhofer-Murray acted as the congress co-scientific Secretary.
2. In order to strengthen the national presence of scholars and students, a network of provincial communicators was formed for the first time. These interlocutors played a significant role in provincial participation as well as in introducing key speakers to the congress from the provincial scholars.
3. At GC2018, we saw a new record of registered students and professors (more than 1,900 participants) from across the country. For this reason, the congressional registration site closed more than a month before the congress began. In addition, registrants from the Netherlands, Germany, Russia, Afghanistan and Iraq participated in the event by direct registration on congress site.
4. In order to improve the quality of submitted abstracts, at GC2-18 and for the first time, we only permitted only one abstract by each participant. Submission of articles was also restricted to research articles and not review and non-research articles.
5. To strengthen the scientific aspects of the congress and to avoid its ceremonial parts, the opening ceremony of the congress was dramatically shortened, by inviting only one honorary speaker (Professor Reza Malekzadeh, Research Deputy of the Ministry of Health and Medical Education).



6. For the first time, we scheduled a student talk in each preliminary sessions. The opportunity to attend in the same sessions with top foreign and national scientists provided a unique experience for these students.

7. In order to further enhance the scientific and cultural interactions, we eliminated the VIP section of the congress and all our honorary guests shared a common reception space with other guests.

8. Given the increasing importance of bioinformatics in analyzing bulk genetic data, all specialized bioinformatics sessions were devoted to the applied bioinformatics training.

9 -With the success of talk-to-speakers sessions at the previous congress, we further expanded this program at the GC2018. A keynote speech entitled "Secrets to Success for Students" was conducted by Prof. Ramin Shiekh Attar, prior to talk-to-speakers sessions.

Holding practical workshops

A 3-days' pre-congress time was devoted to practical workshops. In line with the development of new genetic technologies, a two-day workshop on "Bioinformatics in the discovery of new microRNAs and their target genes" and the Next Generation Sequencing (NGS) workshops had the highest number of participants.





Congress Registration and Participation

The GC2018 were carried out by a new record in the number of registration and submitted abstracts. In particular, the active participation of provisional attendees in this congress was very significant. We had a total number of 1990 registrant with 658 accepted abstracts (with the restriction of only one abstract per participant and rejecting review abstracts)



Forming Provincial Networks

In order to develop the national partnership of researchers and genetics (and related majors) students in the congress, we selected 25 faculty members as the provincial contact persons of the congress, and their appointments were announced to the provincial research centers and universities presidents. All contact persons had an effective role in communicating congressional news to provincial audiences by forming Social Networks Groups. In addition, by identifying top provincial scholars, the provincial liaison helped to introduce some provincial key speakers for specialized congressional sessions.



At the closing ceremony, four provincial liaisons (East Azerbaijan, Hamedan, Kermanshah, and Golestan) with the highest level of participation and activity were honored in the closing ceremony.

Foreign scientists' participation in Congress

At GC2018, due to the German Genetics Association's participation in this scientific event, the largest number of congressional invitations came from Germany (9), though invitees also came from the United States (3), Italy (1), Russia (2) and Switzerland (1).



Tehran exploring Cultural Tour

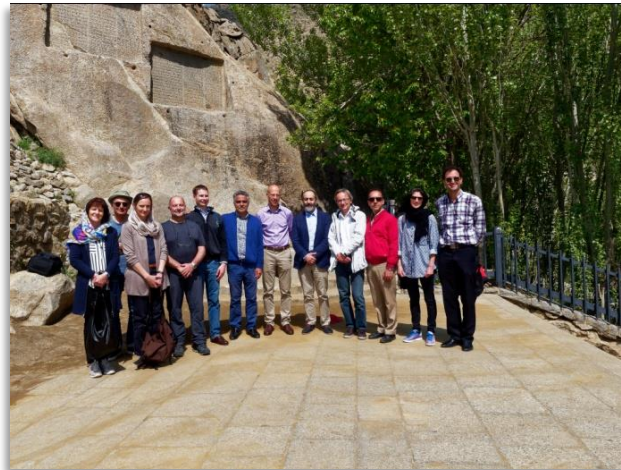
Along with the scientific programs of the Congress, in cooperation with the Cultural Heritage Organization, the Tehran Cultural Tour was offered to introduce the history and culture of Tehran and Iran. Visiting the National Museum of Iran, Tehran Bazaar and Golestan Palace were among the places visited by our foreign guests.





Iran Exploring Tour

Following the policy adopted at the previous congress, we organized a three-day tour with the participation of Hamedan (Dr. Jalal Soltani) and Kermanshah (Dr. Alireza Abdolmohammadi) provincial liaison. Visits to Alisadr Cave, the tombs of Ibn Sina and Babatahr, the Hegmataneh site, Bistoon, Taq Bostan and the old bazaar of Kermanshah were planned for our foreign visitors.





Talk-to-speakers meetings

For the purpose of exchanging and fostering international scientific collaborations, talk-to-speakers meetings were organized between Iranian researchers/students and foreign speakers in a completely informal and face-to-face environment. The registration and planning of these sessions was organized by Dr. Mahshid Malekotian, and the program was highly welcomed by students and professors.



Holding policymaking meetings

On the sidelines of the congress, we held three policymaking meetings with some experts on the subjects and government officials. The main goal of those meetings was to discuss and obtain a unified policy to develop and resolve the shortcomings in the following areas:

- Agricultural Associations meeting for joining to UPOV
- Genetic variations conservation and management of genomic data, challenges, and solutions
- New approaches for genome editing, challenges and opportunities



Bioinformatics workshops

Given the increasing importance of bioinformatics in analyzing bulk data sets for genetic studies, at GC2018, three specialized sessions dedicated to meta-analysis

of transcriptome. These three-session courses presented by Dr. Ali Sharifi Zarchi, and was very welcomed by the students.



The topics of these meetings were as follows:

Title: Transcriptome Analysis, Visualization and Meta-analysis

- Session 1: Preprocessing, differential-expression, visualization and GO/Pathway analysis
- Session 2: RNA-seq quality control, alignment, quantification and differential expression
- Session 3: Meta-analysis, batch-effects: their importance and correcting them

Closing ceremony:

In closing ceremony, we appreciated and awarded the key speakers, and the best poster and oral presenters with the congress statuettes and some gifts. In addition, the German Genetics Society separately awarded three prizes to three selected posters.



The student's best talk and poster presentations award

For the first time, GC2018 restricted the number of abstract submissions, and each participant was allowed to submit only one article. In addition, during several briefings, submissions were restricted to research articles and the submission of review articles was rejected. The largest number of submitted articles (out of 658 accepted articles) belonged to the Human/Medical Genetics branch (with 299 articles), and accordingly the highest number of specialized sessions was assigned to this branch.



In GC2018, efforts were made to make more use of young researchers. In this regard, we endeavored to have a student lecture in each preliminary session, based on the arbitration privilege, English proficiency, and recommendation of the Scientific Committee. The selected students, had the experience of attending an international platform as invited speakers, and fortunately they did very well.



In addition, according to the score of referee committee, 7 posters were selected and awarded as top posters of congress by the Iranian Genetics Association, and 3 posters were selected and awarded by the German Genetics Association.