

LEAGUE OF BRAZILIAN BIOINFORMATICS: CHALLENGES TO PROMOTE SCIENTIFIC TRAINING

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Abstract

The scientific training to become a bioinformatician includes multidisciplinary abilities such as biology, mathematics, statistics, biochemistry, and computer science. Besides, it requires the development of soft-skills such as teamwork, scientific communication, resilience, critical thinking, and research. In order to improve and promote the ongoing training of the Brazilian bioinformatics community, we organize a national competition, with the main goal to develop human resources and abilities in computational biology at the international level. The competition framework was designed in three phases, and the competitors had to organize themselves in groups (until 2-3 participants). The first phase was a one-day challenge with 60 multiple choice questions of Biology, Computer Science, and Bioinformatics. In the second phase, they were challenged to solve 5five programming questions in 5 days. While the third phase included the development of an original project evaluated during the 15th X-meeting. The first edition of the Brazilian League of Bioinformatics (LBB) counted with 168 competitors and 59 groups. We reached 76% out of 26 Brazilian States. The participants were majority men (67.2%) from the southeast of Brazil (around 55%). Also, they were distributed into undergraduate students (14.4%), graduate students (12.6% master and 16.8%, Ph.D.), and professionals in the field. The first phase selected 46 teams to proceed in the competition, while the second phase selected the three top-performing teams. The Brazilian League of Bioinformatics included mostly multi-diverse groups, however, the finals were composed only of men. During the competition we were able to stimulate teamwork in the main areas of bioinformatics, with the engagement of all research-level competitors. Furthermore, we identified opportunities to deliver and offer better training to the community and we intend to apply the acquired experience in the second edition of the LBB, which will occur in 2021.

Funding:

Link to Video: