Nextflow and nf-core: Reproducible workflows for the scientific community

Diverse communities get the best from everyone.

nf-core and Nextflow contributors and maintainers openly subscribe to and promote the Contributor Covenant Code of Conduct, which is displayed in our respective websites and GitHub repositories.

As a community, we strive to promote and encourage diversity and inclusiveness. Event organisers have made and continue to make an active effort to encourage, invite and economically support speakers and participants from under-represented groups. We are proposing to include 10 bursaries to speakers and participants from under-represented groups for the Nextflow conference in 2020 and produce four training events to scientists in economically disadvantaged locations. Future nf-core events will be held in new countries where possible, to further spread the community in to improve community inclusiveness. Use of distributed online platforms such as GitHub, Gitter and Slack allows anyone to join the Nextflow and nf-core communities for free.

As a technology, Nextflow continues to be pivotal in democratising high-throughput computing in life sciences. By simplifying cloud deployment according to FAIR and open source values, Nextfow provides a means for the marginalised and disadvantaged to access computational resources that were previously the domain of the privileged few.

Through the PHIND Access program we are providing Nextflow training and researcher exchanges in Tunisia. Using Nextflow, bioinformaticians in North Africa can deploy pathogen identification workflows in the cloud and perform analyses which were previously not possible in a country with a limited science budget.

****

Expanding the Open mHealth Platform to Support Digital Biomarker Discovery

Our team is committed to actively promoting and supporting diversity, equity, and inclusion in our everyday activities. Our team fosters a working environment where every member feels valued, supported and inspired to achieve individual and common goals in advancing biomedical informatics. In an active effort in this front, the BIG IDEAs Lab is organizing a regional Women in Data Science (WiDS) conference at Duke to facilitate new connections and display research by top women in data science in the Research Triangle. Both Co-PI's of this proposal are strong female leaders in Biomedical Data Science and Mobile Health. In alignment with our ideals, our culturally, socially, and socioeconomically diverse team is committed to addressing health disparities by increasing access to healthcare through mobile health technologies (e.g. using low cost wearables to predict influenza infection; detecting circadian disruption of shift workers; predicting pregnancy outcomes in unstably housed communities). Our interpretation of success is fundamentally tied to our core values of involving citizen scientists and community activists in our research advisory boards to ensure that we consider all angles of equal opportunity and access. We value a broad range of skills and perspectives, and are particularly excited by contributors with non-traditional backgrounds and viewpoints. Further, the Open mHealth framework was successfully ignited by notable female founders with the main aim to enable diverse developers and healthcare enthusiasts to innovate in the sphere of mobile health.