



The Bioinformatics Internship

Internship Proposal

26th July, 2020 - 23rd August, 2020

OVERVIEW

HackBio is a virtually regimented research internship that is practice oriented and focused on equipping African scientists with advanced bioinformatics and computational biology skills. Due to the current COVID-19 pandemic, all research tasks will be focused on solving the pandemic using available biological data.

As a statement of clarity, this is not a 'do-as-I-do' training, infact, participants are expected to bring in their top game to scale through the research tasks. However, reasonable technical help will be provided by a dedicated team of mentors. Participants will be grouped into teams and will be made to undergo 5 stages, stage 0 to stage 4.

The internship is open to every African scientist (students, graduates, researcher, postdoc, freelancer, teacher/lecturer, professor or academic professional)

Who are mentors? Mentors are active researchers that have significant experience in the different biostacks. As a minimum requirement, they are postgraduate or graduate students (or more advanced) with at least 2 peer-reviewed, pubmed indexed articles.

MILESTONES

We anticipate an initial registration of 500 persons.

STAGE 0: Pruning those that are complete novice and are not ready to learn-on-the-go. Simple tasks (3 days)

STAGE 1: Achieve digital collaboration with common tools among participants; anyone who is unable to collaborate will be eliminated (4 days)

STAGE 2*: Distribution of individuals into different biostacks, as it applies to the theme. Preliminary tasks on usage of software, linux environment and basic language debugging. (1 week; 60 persons scale through and enter stage 2)

STAGE 3*: Reshuffling of individuals into 5 teams and assignment of the 5 projects. All participants who get to this stage will receive a badge of honor. (1 week; 40 persons scale through and enter stage 4)

STAGE 4: Submission of all results in their raw form, all codes, designs and final manuscript draft. (1 week; only the team with the best result will be awarded the final cash prize)

LAST DAY: Presentation of results, award day

*Persons who successfully scale through this stage will be given gifts.

GOALS

1. Expand the bioinformatics capabilities of African scientists
2. Improve networking among young African scientists
3. Accelerate bioinformatics discoveries in Africa
4. Increase public understanding of biological science and its implications for our world

BIOSTACKS

BIOSTACKS refer to the different bioinformatics areas of application. For this edition:

- genomics
- drug development
- vaccine informatics
- medicinal chemistry and cheminformatics
- data analytics
- software development
- science communication
- publication image design
- bioinformatics UI/UX

Collaboration tools: Slack, GitHub, Google Docs, Google Sheet, Google Slides, Figma, R cloud, Cloud Computing resources, Jupyter cloud.

BUDGET

S/N	TASK	Sub-Total Cost (USD)	TOTAL AMOUNT (USD)
1	Mini prizes (as interns progress)		

	60 Interns proceed to stage 3 (USD2.58 each)	154.64	257.73
	40 interns proceed to stage 4 (USD2.58 each)	103.90	
2	Final Prize for best team presentation (judged by the sponsors)		386.60
3	Incentive for 10 Mentors		515.46
	2 mentors each are assigned to the 5 teams	103.90	
4	T-shirts for all participants who get to stage 4		199.74
	40 participants get to stage 4 + 10 mentors	3.99	
5	Total		1359.53

Organizing Team

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- Emmanuel BABATUNDE
- Samson ADEGBE
- Tosin Omole

Contact

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