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Dear Committee Members,

I would like to express my sincere gratitude to the ESHG Education Committee for providing me with the opportunity to complete a meaningful observership at the Wolfson Childhood Cancer Centre, Newcastle University, under the supervision of Professor James M. Allan. Coming from Southeast Asia, I found this experience to be invaluable exposure to world-class research.

During my stay, I was actively involved in hands-on cancer research, maintaining multiple cell culture lines and conducting drug synergy experiments and protein assays. Our research group was investigating the effects of TET2 knockout and azacytidine recovery across various cancer models.

Here, I was introduced to CRISPR technology. The group utilised CRISPR to generate cell lines with a TET2 knockout, which were then used to study the effects of azacytidine. As I had never used CRISPR before, this was an entirely new experience for me. Witnessing its practical application firsthand truly bridged the gap between theory and practice, deepening my understanding of its utility in cancer research. I was also given the opportunity to explore several RNA and Nanopore sequencing datasets for methylation analysis, derived from treated TET2 knockout cell lines.

Over the four-week period, I engaged in various departmental activities, including laboratory meetings and educational seminars. Notably, I was introduced to other research groups working on long-read sequencing and its impact on telomere length and the diagnosis of certain cancer types, a topic close to my current PhD research. Additionally, I networked with early-career doctors and scientists in human genetics, establishing valuable connections for future collaborations.

Once again, I would like to express my heartfelt thanks to Prof. James and his students, Tanjid, Dean, Holly, Daisy, and Yue, for making this attachment so memorable. Thank you, ESHG, for making this invaluable experience possible.

Best wishes,
Amin