IARC Meeting 56: June 15th 2020: minutes

The meeting commenced at 10:30 UTC. AC, MO, MC and WL were in attendance. Corey Watson and Gur Yaari also attended.

1. The minutes of Meeting 55 were approved.
2. MO opened discussion of the challenges of light chain inferences, highlighting the lambda IGLV2-14 example, and the challenges of low expression by most of the genes of the distal kappa locus. GY described his group approach to truncated sequences, with artificial extensions improving the performance of TIgGER. He commented that this ad hoc approach needed improvement. Clonality and overlap between different CDR3 populations was discussed. MC described his group's efforts to extend short IMGT sequences through genomic sequencing, and a number of these extensions have been submitted to Genbank. They may not have been picked up by IMGT, as WL and others suggest that IMGT may not be closely monitoring new Genbank submissions. CW commented that there may be additional extensions in some of his genomic data, and he will investigate.
3. Concerns were raised regarding the available reference sets at IMGT for species other than mouse and human. Macaque, ferret and hamster have gained renewed importance with the COVID pandemic, and much better sets are required for these species.
4. GY raised the prospect of an improved human reference set, with attention paid to resolving some of the challenges produced by duplicate genes, amongst other issues. WL commented that the IARC was constrained from considering some inferences by the need for studies to be published, and for sequences to have been submitted to Genbank. Genbank also requires publication, particularly with TPA submissions. If however, a way could be found to define a validated reference set, using VDJbase and other tools, it would be very valuable to the AIRR-C. Whether or not the scope of this action would need to be defined by the AIRR-C is an issue that will need to be resolved. Before that action could be considered, the IARC needs to conclude its evaluation of S00028. It was agreed that the committee is now ready to do this, though before an evaluation can be concluded, the IGLV2-14*03 and *04 inferences will need to be re-listed in OGRDB. These two sequences currently have substantial truncations that might be resolved by the S00028 submission.
4. The next meeting (Meeting 57) will be held on Tuesday July 7th at 10:30 UTC, subject to confirmation that this time is suitable for CS. MC will not attend the meeting as it will consider a submission from his group.

The meeting ended at 11:32 UTC.