

## Minutes of IARC meeting 107, October 19th, 2022

In attendance: Ayelet Peres, Gur Yaari, Martin Corcoran, William Lees, Corey Watson, Mats Ohlin, James Heather

### 1. Approval of minutes of meeting 105

Approved

### 2. Approval of minutes of meeting 106

Approved

### 3. Report of IARC activities to the AIRR-C Executive Sub-committee - Special Meeting with WG/SC Co-leads on Oct 20, 2022

Report was summarized

### 4. Functional groups reference book - update

The tool has been further updated.

### 5. Submission of data for IGLV2-14\*i02 (IGLV2-14\*04) and of data for additional inferred IGHV P1 sequences in VDJbase that have not yet been affirmed (e.g. IGHV3-30\*04 C201T G317A (IGHV3-30\*18 G113C C114T) (P1\_I70), IGHV3-13\*01\_G290A\_T300C (P1\_10), IGHV4-61\*01 A41G (P1\_I23)) to ENA/GenBank - update

Submitted. Waiting for a response.

### 6. Consideration of the ability to use genomic evidence from other subjects to promote sequences, which would otherwise be considered as a level 0 inference, to level 1. (IGLV7-46\*i01 as a test case)

IGHV7-46\*i01 was originally considered at IARC meetings 57 and 58 and affirmed as a level 0 sequence. Following its inclusion into IMGT based on genomic sequence data it was elevated to level 1 at IARC meeting 102 a decision that was reverted at IARC meeting 106 (the sequence had never been made publicly available). The data used for inference is rather mutated and in addition poorly support the 3'-end of the allele. Can the entire allele be included into the public domain of OGRDB through support by genomic data (GenBank: OL352718) of another subject or the same subject (Genbank: MK587528) or should it be included only based on evidence of the data used for inference?

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IGLV7-46*01      CAGGCTGTGGTGACTCAGGAGCCCTCACTGACTGTGTCCCCAGGAGGGACAGTCACTCTCACCTGTGGCT
IGLV7-46*01_IMG T CAGGCTGTGGTGACTCAGGAGCCCTCACTGACTGTGTCCCCAGGAGGGACAGTCACTCTCACCTGTGGCT
IGLV7-46*02_IMG T CAGGCTGTGGTGACTCAGGAGCCCTCACTGACTGTGTCCCCAGGAGGGACAGTCACTCTCACCTGTGGCT
IGHV7-46*04_IMG T CAGGCTGTGGTGACTCAGGAGCCCTCACTGACTGTGTCCCCAGGAGGGACAGTCACTCTCACCTGTGGCT

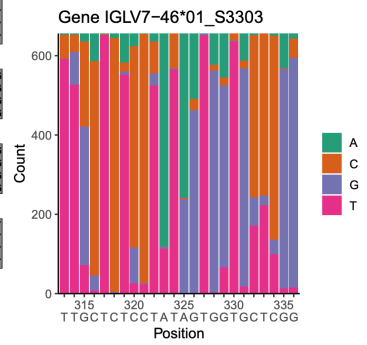
IGLV7-46*01      CCAGCACTGGAGCTGTACCAGTGGTCATATCCCTACTGGTTCCAGCAGAAGCCTGGCCAAGCCCCAG
IGLV7-46*01_IMG T CCAGCACTGGAGCTGTACCAGTGGTCATATCCCTACTGGTTCCAGCAGAAGCCTGGCCAAGCCCCAG
IGLV7-46*02_IMG T CCAGCACTGGAGCTGTACCAGTGGTCATATCCCTACTGGTTCCAGCAGAAGCCTGGCCAAGCCCCAG
IGHV7-46*04_IMG T CCAGCACTGGAGCTGTACCAGTGGTCATATCCCTACTGGTTCCAGCAGAAGCCTGGCCAAGCCCCAG

IGLV7-46*01      GACACTGATTTATGATACAAGCAACAACACTCCTGGACCTGCCCGGTTCTCAGGCTCCCTCCTTGGG
IGLV7-46*01_IMG T GACACTGATTTATGATACAAGCAACAACACTCCTGGACCTGCCCGGTTCTCAGGCTCCCTCCTTGGG
IGLV7-46*02_IMG T GACACTGATTTATGATACAAGCAACAACACTCCTGGACCTGCCCGGTTCTCAGGCTCCCTCCTTGGG
IGHV7-46*04_IMG T GACACTGATTTATGATACAAGCAACAACACTCCTGGACCTGCCCGGTTCTCAGGCTCCCTCCTTGGG

IGLV7-46*01      GGC AAAAGCTGCCCTGACCCCTTTCGGGTGCCAGCCTGAGGATGAGGCTGAGTATTACTGCTTGCCTCCT
IGLV7-46*01_IMG T GGC AAAAGCTGCCCTGACCCCTTTCGGGTGCCAGCCTGAGGATGAGGCTGAGTATTACTGCTTGCCTCCT
IGLV7-46*02_IMG T GGC AAAAGCTGCCCTGACCCCTTTCGGGTGCCAGCCTGAGGATGAGGCTGAGTATTACTGCTTGCCTCCT
IGHV7-46*04_IMG T GGC AAAAGCTGCCCTGACCCCTTTCGGGTGCCAGCCTGAGGATGAGGCTGAGTATTACTGCTTGCCTCCT

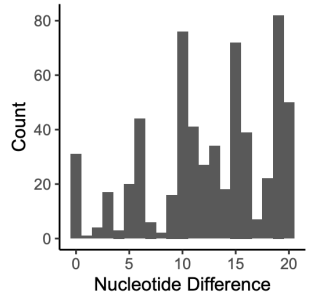
IGLV7-46*01      ATAGTGGTGCTCGG
IGLV7-46*01_IMG T ATAGTGGTGCTCGG
IGLV7-46*02_IMG T ATAGTGGTGCTCGG
IGHV7-46*04_IMG T ATAGTGGTGCTCGG

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**IGLV7-46\*01\_S3303**

656 sequences assigned  
 31 (4.7%) exact matches, in which:  
 10 unique CDR3  
 3 unique J



**Decision:**

- The IGLV7-46\*i01 allele (full length) is approved and moved to level 1 based on its own merits in combination with genomic data from the subject in question and another subject.
- A process for incorporation of Sanger-based genomic data in IARC’s decision-making process will be discussed and established. A Google Doc draft will be created by MC.
- A process for incorporating genomic data of other origin in IARC’s decision-making process will be discussed and established through discussion with data generators.

**7. IARC - Notes on development of human IGH germline sets that are optimized for use in AIRR-seq analysis.**

Brief discussion

**8. Next meeting**

Monday 24th at 10.00 UTC