In light of the decision granting Motion 4 filed by Junior Party (“CVC”), the interference is redeclared as follows. (See Decision on Motions, Paper 834, 52:11–62:4.)
Part E. Identification and order of the parties

Junior Party ("CVC")

Application: 15/947,680, filed 6 April 2018
Application: 15/947,700, filed 6 April 2018
Application: 15/947,718, filed 6 April 2018
Application: 15/981,807, filed 16 May 2018
Application: 15/981,808, filed 16 May 2018
Application: 15/981,809, filed 16 May 2018
Application: 16/136,159, filed 19 September 2018
Application: 16/136,165, filed 19 September 2018
Application: 16/136,168, filed 19 September 2018
Application: 16/136,175, filed 19 September 2018
Application: 16/276,361, filed 14 February 2019
Application: 16/276,365, filed 14 February 2019
Application: 16/276,368, filed 14 February 2019
Application: 16/276,374, filed 14 February 2019

The named inventors on each of the involved CVC applications are:

Jennifer A. Doudna
Berkeley, CA

Martin Jinek
Berkeley, CA

Emmanuelle Charpentier
Braunschweig, GERMANY

Krzysztof Chylinski
Vienna, AUSTRIA

The assignees of each of the involved CVC applications are:

The Regents of the University of California and University of Vienna

The title of each of the involved CVC applications is:

Methods and Compositions for RNA-Directed Target DNA Modification and for RNA-Directed Modulation of Transcription

Senior Party (“Sigma”)

Application: 15/456,204, filed 10 March 2017;

Patent: 10,731,181, issued 4 August 2020 from application 15/188,911, filed 21 June 2016;


Named Inventors: Fuqiang Chen
St. Louis, MO

Gregory D. Davis
St. Louis, MO

The assignee of the involved Sigma application and patents is:

Sigma-Aldrich Co. LLC

The title of the involved Sigma application and patents is:

CRISPR-Based Genome Modification and Regulation
Part F. Count and claims of the parties

Count 1

CVC Application 15/981,807, claim 156

or

Sigma Application 15/456,204, claim 31

CVC Application 15/981,807, claim 156 recites:

A eukaryotic cell comprising a target DNA molecule and an engineered and/or non-naturally occurring Type II Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) – CRISPR associated (Cas) (CRISPR-Cas) system comprising

a) a Cas9 protein, or a nucleic acid comprising a nucleotide sequence encoding said Cas9 protein; and

b) a single molecule DNA-targeting RNA, or a nucleic acid comprising a nucleotide sequence encoding said single molecule DNA-targeting RNA; wherein the single molecule DNA-targeting RNA comprises:

i) a targeter-RNA that is capable of hybridizing with a target sequence in the target DNA molecule, and

ii) an activator-RNA that is capable of hybridizing with the targeter-RNA to form a double-stranded RNA duplex of a protein-binding segment, wherein the activator-RNA and the targeter-RNA are covalently linked to one another with intervening nucleotides; and

wherein the single molecule DNA-targeting RNA is capable of forming a complex with the Cas9 protein, thereby targeting the Cas9 protein to the target
DNA molecule, whereby said system is capable of cleaving or editing the target DNA molecule or modulating transcription of at least one gene encoded by the target DNA molecule.

Sigma Application 15/456,204, claim 31 recites:

A method for modifying a chromosomal sequence in a eukaryotic cell by integrating a donor sequence, the method comprising introducing into the eukaryotic cell:

(i) a Clustered Regularly Interspersed Short Palindromic Repeats (CRISPR)/CRISPR-associated (Cas) (CRISPR-Cas) type II protein linked to only one nuclear localization signal (NLS) or a nucleic acid encoding the CRISPR-Cas type II protein linked to only one NLS, wherein the CRISPR-Cas type II protein is a Cas9 protein, and the nucleic acid encoding the CRISPR-Cas type II protein is codon optimized for expression in the eukaryotic cell;

(ii) a guide RNA or DNA encoding the guide RNA, wherein the guide RNA comprises a first region that is complementary to a target site in the chromosomal sequence, which target site in the chromosomal sequence is immediately followed by a protospacer adjacent motif (PAM), and a second region that interacts with the CRISPR-Cas type II protein, and wherein the guide RNA comprises a crRNA and a tracrRNA; and

(iii) a donor polynucleotide comprising the donor sequence and upstream and downstream sequences;

wherein the guide RNA guides the CRISPR-Cas type II protein to the target site in the chromosomal sequence, the CRISPR-Cas type II protein introduces a
double-stranded break at the target site, and repair of the double-stranded break by a DNA homology-directed repair (HDR) process leads to integration or exchange of the donor sequence into the chromosomal sequence.

The claims of the parties are:

**CVC**

Application 15/947,680 – Claims 156–185

Application 15/947,700 – Claims 156–185

Application 15/947,718 – Claims 156–185

Application 15/981,807 – Claims 156–185

Application 15/981,808 – Claims 156–170 and 172–185

Application 15/981,809 – Claims 156–170 and 172–185

Application 16/136,159 – Claims 156–184

Application 16/136,165 – Claims 156–184

Application 16/136,168 – Claims 156–184

Application 16/136,175 – Claims 156–184

Application 16/276,361 – Claims 3–31

Application 16/276,365 – Claims 3–32

Application 16/276,368 – Claims 3–31

Application 16/276,374 – Claims 3–32

**Sigma**

Application 15/456,204 – Claims 31–63
The claims of the parties which correspond to Count 1 are:

**CVC**

- Application 15/947,680 – Claims 156–185
- Application 15/947,700 – Claims 156–185
- Application 15/947,718 – Claims 156–185
- Application 15/981,807 – Claims 156–185
- Application 15/981,808 – Claims 156–170 and 172–185
- Application 15/981,809 – Claims 156–170 and 172–185
- Application 16/136,159 – Claims 156–184
- Application 16/136,165 – Claims 156–184
- Application 16/136,168 – Claims 156–184
- Application 16/136,175 – Claims 156–184
- Application 16/276,361 – Claims 3–31
- Application 16/276,365 – Claims 3–32
- Application 16/276,368 – Claims 3–31
- Application 16/276,374 – Claims 3–32

**Sigma**

- Application 15/456,204 – Claims 31–63
Interference 106,132

1  Patent 10,731,181 – claims 1–17
2  Patent 10,745,716 – claims 2–4, 11, 14, 21, 22
3  The claims of the parties which do not correspond to Count 1, and therefore
4  are not involved in the interference, are:
5  
6  CVC
7  Application 15/947,680 – None
8  Application 15/947,700 – None
9  Application 15/947,718 – None
10  Application 15/981,807 – None
11  Application 15/981,808 – None
12  Application 15/981,809 – None
13  Application 16/136,159 – None
14  Application 16/136,165 – None
15  Application 16/136,168 – None
16  Application 16/136,175 – None
17  Application 16/276,361 – None
18  Application 16/276,365 – None
19  Application 16/276,368 – None
20  Application 16/276,374 – None
21  Sigma
22  Application 15/456,204 – None
Interference 106,132

1. **Patent 10,731,181 – None**
2. **Patent 10,745,716 – None**

The parties are accorded the following earliest benefit dates for Count 1:

**CVC**

4. Provisional Application 61/757,640, filed 28 January 2013

**Sigma**

5. Provisional Application 61/734,256, filed 6 December 2012
Interference 106,132

1. **Part G. Heading to be used on papers**

   The following heading must be used on all papers filed in this interference, see SO ¶ 106.1.1:

   UNITED STATES PATENT AND TRADEMARK OFFICE
   
   ________________
   
   BEFORE THE PATENT TRIAL AND APPEAL BOARD
   
   ________________

   THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, UNIVERSITY

   OF VIENNA, AND EMMANUELLE CHARPENTIER

   Applications 15/947,680; 15/947,700; 15/947,718; 15/981,807; 15/981,808;
   15/981,809; 16/136,159; 16/136,165; 16/136,168; 16/276,361; 16/276,365;
   16/276,368; 16/276,374; 16/136,175,

   **Junior Party**

   v.

   SIGMA-ALDRICH CO., LLC

   Application 15/456,204; Patents 10,731,181; 10,745,716

   **Senior Party**

   ________________

   Patent Interference No. 106,132
1. No other provisions of the original Declaration are changed.

cc (via E-mail):

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Interference 106,132

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