



(11) **EP 3 156 494 B8**

(12) **CORRECTED EUROPEAN PATENT SPECIFICATION**

(15) Correction information:  
**Corrected version no 1 (W1 B1)**  
**Corrections, see**  
**Bibliography INID code(s) 73**

(51) Int Cl.:  
**C12N 15/85 (2006.01)**

(48) Corrigendum issued on:  
**19.09.2018 Bulletin 2018/38**

(45) Date of publication and mention  
of the grant of the patent:  
**25.04.2018 Bulletin 2018/17**

(21) Application number: **16200237.2**

(22) Date of filing: **03.12.2009**

---

(54) **GENOME EDITING IN RATS USING ZINC-FINGER NUCLEASES**

GENOMÄNDERUNG BEI RATTEN MITHILFE VON ZINK-FINGER-NUKLEASEN

ÉDITION DE GÉNOME CHEZ DES RATS AU MOYEN DE NUCLÉASES EN DOIGT DE ZINC

---

(84) Designated Contracting States:  
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR**  
**HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL**  
**PT RO SE SI SK SM TR**

(30) Priority: **04.12.2008 US 200985 P**  
**26.01.2009 US 205970 P**  
**24.11.2009 US 263904 P**

(43) Date of publication of application:  
**19.04.2017 Bulletin 2017/16**

(62) Document number(s) of the earlier application(s) in  
accordance with Art. 76 EPC:  
**09830727.5 / 2 352 369**

(73) Proprietors:  

- **Sangamo Therapeutics, Inc.**  
**Richmond, CA 94804 (US)**
- **Sigma-Aldrich Co.**  
**St. Louis, MO 63103 (US)**

(72) Inventors:  

- **CUI, Xiaoxia**  
**St. Louis, MO 63146 (US)**
- **GEURTS, Aron M.**  
**New Berlin, WI 53151 (US)**

• **URNOV, Fyodor**  
**Richmond, CA 94804 (US)**

(74) Representative: **Weickmann & Weickmann**  
**PartmbB**  
**Postfach 860 820**  
**81635 München (DE)**

(56) References cited:  
**EP-A1- 1 348 335 WO-A1-2008/151081**  
**WO-A2-03/080809 WO-A2-03/087341**  
**US-A1- 2009 205 083**

• **MILLER JEFFREY C ET AL: "An improved  
zinc-finger nuclease architecture for highly  
specific genome editing", NATURE  
BIOTECHNOLOGY, NATURE PUBLISHING  
GROUP, NEW YORK, NY, US, vol. 25, no. 7, 1 July  
2007 (2007-07-01), pages 778-785, XP002465119,  
ISSN: 1087-0156, DOI: 10.1038/NBT1319**

**EP 3 156 494 B8**

---

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

---

- URNOV F D ET AL: "Highly efficient endogenous human gene correction using designed zinc-finger nucleases", NATURE: INTERNATIONAL WEEKLY JOURNAL OF SCIENCE, NATURE PUBLISHING GROUP, UNITED KINGDOM, vol. 435, no. 7042, 2 June 2005 (2005-06-02), pages 646-651, XP002411069, ISSN: 0028-0836, DOI: 10.1038/NATURE03556
- PORTEUS M H ET AL: "GENE TARGETING USING ZINC FINGER NUCLEASES", NATURE BIOTECHNOLOGY, NATURE PUBLISHING GROUP, NEW YORK, NY, US, vol. 23, no. 8, 1 August 2005 (2005-08-01) , pages 967-973, XP002467422, ISSN: 1087-0156, DOI: 10.1038/NBT1125
- DOYON Y ET AL: "Heritable targeted gene disruption in zebrafish using designed zinc-finger nucleases", NATURE BIOTECHNOLOGY, GALE GROUP INC, US, vol. 26, no. 6, 1 June 2008 (2008-06-01), pages 702-708, XP002512110, ISSN: 1087-0156, DOI: 10.1038/NBT1409 [retrieved on 2008-05-25]
- MENG XIANGDONG ET AL: "Targeted gene inactivation in zebrafish using engineered zinc-finger nucleases", NATURE BIOTECHNOLOGY, GALE GROUP INC, US, vol. 26, no. 6, 1 June 2008 (2008-06-01), pages 695-701, XP002512111, ISSN: 1087-0156, DOI: 10.1038/NBT1398 [retrieved on 2008-05-25]