

# (SD2016-077) Patented Technology: Cas9 polypeptides which target RNA and method of using them are provided

Tech ID: 27089 / UC Case 2016-077-0

## BACKGROUND

Researchers at University of California, San Diego invented and patented a technology that establishes RCas9 as a means to track RNA in living cells in a programmable manner without genetically encoded tags, and may open doors to new treatments for many conditions, from cancer to autism.

Presently, UCSD is offering to license [patent rights in the United States](#) (US 11,667,903) and other countries listed below:

Patent No.	Country
11,667,903	UNITED STATES
2016359629	AUSTRALIA
1261890	HONG KONG
20220402347	GREECE
502022000075798	ITALY
602016075935.7	GERMANY
2930643	SPAIN
3380613	AUSTRIA
3380613	FRANCE
3380613	UNITED KINGDOM
3380613	NETHERLANDS
3380613	PORTUGAL

## TECHNOLOGY DESCRIPTION

RNA-targeting Cas9 enables tracking of endogenous, untagged mRNA, establishing CRISPR/Cas9 as a programmable system to recognize RNA in live cells.

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## OTHER INFORMATION

### KEYWORDS

CRISP-Cas9, gene editing, RNA tracking

### CATEGORIZED AS

- ▶ Medical
  - ▶ Diagnostics
  - ▶ Imaging
  - ▶ Research Tools

### RELATED CASES

2016-077-0



US011667903B2

(12) **United States Patent**  
**Yeo et al.**

(10) **Patent No.: US 11,667,903 B2**  
(45) **Date of Patent: Jun. 6, 2023**

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(71)	Applicant: <b>The Regents of the University of California</b> , La Jolla, CA (US)	5,539,082 A	7/1996	Nielsen et al.
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(72)	Inventors: <b>Eugene Yeo</b> , La Jolla, CA (US); <b>David A. Nelles</b> , La Jolla, CA (US); <b>Mark Fang</b> , La Jolla, CA (US); <b>Ranjan Batra</b> , La Jolla, CA (US)	5,596,086 A	1/1997	Matteucci et al.
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(*)	Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 522 days.	5,677,439 A	10/1997	Weis et al.
		5,714,331 A	2/1998	Buchardt et al.
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	<b>A61K 48/00</b> (2006.01)			
	<b>CI2N 9/22</b> (2006.01)			
	<b>CI2N 15/11</b> (2006.01)			

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RELATED MATERIALS

- ▶ Nelles DA, Fang MY, O'Connell MR, Xu JL, Markmiller SJ, Doudna JA, Yeo GW. Programmable RNA Tracking in Live Cells with CRISPR/Cas9. Cell. 2016 Apr 7;165(2):488-96. - 04/07/2016
- ▶ (VIDEO) How to Target RNA in Live Cells using CRISPR-Cas9, with Dr. Gene Yeo of UC San Diego

PATENT STATUS

Country	Type	Number	Dated	Case
Patent Cooperation Treaty	Published Application	2017091630	06/01/2017	2016-077

Additional Patent Pending