# Organize Bibliography:

# Scientific Articles:

Articles from presented teams about this research subject :  $\rightarrow$  I don't have many commentaries about these articles, they were all really interesting, and they were the starting point of my subject

 State Key Laboratory of Neuroscience, Key Laboratory of Primate Neurobiology Articles :

Liu Zhen, Yijun Cai, Zhaodi Liao, Yuting Xu, Yan Wang, Zhanyang Wang, Xiaoyu Jiang, et al. "Cloning of a Gene-Edited Macaque Monkey by Somatic Cell Nuclear Transfer." National Science Review 6, no. 1 (January 1, 2019): 101–8. <a href="https://doi.org/10.1093/nsr/nwz003">https://doi.org/10.1093/nsr/nwz003</a>.

Liu Zhen, Xiao Li, Jun-Tao Zhang, Yi-Jun Cai, Tian-Lin Cheng, Cheng Cheng, Yan Wang, et al. "Autism-like Behaviours and Germline Transmission in Transgenic Monkeys Overexpressing MeCP2." Nature 530, no. 7588 (February 2016): 98–102. <a href="https://doi.org/10.1038/nature16533">https://doi.org/10.1038/nature16533</a>.

Liu Zhen, Xue Zhou, Ying Zhu, Zhi-Fang Chen, Bin Yu, Yan Wang, Chen-Chen Zhang, et al. "Generation of a Monkey with MECP2 Mutations by TALEN-Based Gene Targeting." Neuroscience Bulletin 30, no. 3 (June 1, 2014): 381–86. <a href="https://doi.org/10.1007/s12264-014-1434-8">https://doi.org/10.1007/s12264-014-1434-8</a>.

Yao Xuan, Zhen Liu, Xing Wang, Yan Wang, Yan-Hong Nie, Liang Lai, Ruilin Sun, Linyu Shi, Qiang Sun, and Hui Yang. "Generation of Knock-in Cynomolgus Monkey via CRISPR/Cas9 Editing." Cell Research 28, no. 3 (March 2018): 379–82. <a href="https://doi.org/10.1038/cr.2018.9">https://doi.org/10.1038/cr.2018.9</a>.

Qiu Peiyuan, Jian Jiang, Zhen Liu, Yijun Cai, Tao Huang, Yan Wang, Qiming Liu, et al. "BMAL1 Knockout Macaque Monkeys Display Reduced Sleep and Psychiatric Disorders." National Science Review 6, no. 1 (January 1, 2019): 87–100. <a href="https://doi.org/10.1093/nsr/nwz002">https://doi.org/10.1093/nsr/nwz002</a>.

 Yunnan Key Laboratory of Primate Biomedical Research Articles:

Shi Lei, Xin Luo, Jin Jiang, Yongchang Chen, Cirong Liu, Ting Hu, Min Li, et al. "Transgenic Rhesus Monkeys Carrying the Human MCPH1 Gene Copies Show Human-like Neoteny of Brain Development." National Science Review. Accessed May 9, 2019. <a href="https://doi.org/10.1093/nsr/nwz043">https://doi.org/10.1093/nsr/nwz043</a>.

Chen Yongchang, Yinghui Zheng, Yu Kang, Weili Yang, Yuyu Niu, Xiangyu Guo, Zhuchi Tu, et al. "Functional Disruption of the Dystrophin Gene in Rhesus Monkey Using CRISPR/Cas9." Human Molecular Genetics 24, no. 13 (July 1, 2015): 3764–74. https://doi.org/10.1093/hmg/ddv120.

 Guangdong-Hongkong-Macau Institute of CNS Regeneration Articles :

Weili Yang, Shi-Hua Li, and Xiao-Jiang Li. "A CRISPR Monkey Model Unravels a Unique Function of PINK1 in Primate Brains." Molecular Neurodegeneration 14 (December 1, 2019). <a href="https://doi.org/10.1186/s13024-019-0321-9">https://doi.org/10.1186/s13024-019-0321-9</a>.

Yang Weili, Yunbo Liu, Zhuchi Tu, Chong Xiao, Sen Yan, Xishan Ma, Xiangyu Guo, et al. "CRISPR/Cas9-Mediated PINK1 Deletion Leads to Neurodegeneration in Rhesus Monkeys." Cell Research 29, no. 4 (April 2019): 334. https://doi.org/10.1038/s41422-019-0142-y.

• Laboratory for Marmoset Neural Architecture Articles :

Okano Hideyuki, and Noriyuki Kishi. "Investigation of Brain Science and Neurological/Psychiatric Disorders Using Genetically Modified Non-Human Primates." Current Opinion in Neurobiology, Neurotechnologies, 50 (June 1, 2018): 1–6. <a href="https://doi.org/10.1016/j.conb.2017.10.016">https://doi.org/10.1016/j.conb.2017.10.016</a>.

Okano Hideyuki, Erika Sasaki, Tetsuo Yamamori, Atsushi Iriki, Tomomi Shimogori, Yoko Yamaguchi, Kiyoto Kasai, and Atsushi Miyawaki. "Brain/MINDS: A Japanese National Brain Project for Marmoset Neuroscience." Neuron 92, no. 3 (November 2, 2016): 582–90. https://doi.org/10.1016/j.neuron.2016.10.018.

# • Other Laboratory:

Tomioka Ikuo, Hidetoshi Ishibashi, Eiko N. Minakawa, Hideyuki H. Motohashi, Osamu Takayama, Yuko Saito, H. Akiko Popiel, et al. "Transgenic Monkey Model of the Polyglutamine Diseases Recapitulating Progressive Neurological

Symptoms." ENeuro 4, no. 2 (March 28, 2017). https://doi.org/10.1523/ENEURO.0250-16.2017.  $\rightarrow$  this is an article that produced transgenic monkey in Japan, however, I didn't state it in my essay because I couldn't find a clear team who work on this research subject

#### Other articles used as references in my argumentation:

#### • About Ethics:

Nienke de Graeff Nienke, Jongsma Karin R., Johnston Josephine, Hartley Sarah, and Bredenoord Annelien L. "The Ethics of Genome Editing in Non-Human Animals: A Systematic Review of Reasons Reported in the Academic Literature." Philosophical Transactions of the Royal Society B: Biological Sciences 374, no. 1772 (May 13, 2019): 2018. <a href="https://doi.org/10.1098/rstb.2018.0106">https://doi.org/10.1098/rstb.2018.0106</a>. → very interesting, provides many arguments in favor an against the use of animal for scientfic experiments, I used some in my argumentation

Neuhaus CP. 2017 "Ethical issues when modeling brain disorders in non-human primates." J. Med. Ethics 44, 323–327. doi:10.1136/medethics-2016-104088  $\rightarrow$  mainly useful to had citations to support my words

# • Other:

Samaco Rodney C., Caleigh Mandel-Brehm, Christopher M. McGraw, Chad A. Shaw, Bryan E. McGill, and Huda Y. Zoghbi. "Crh and Oprm1 Mediate Anxiety-Related Behavior and Social Approach in a Mouse Model of MECP2 Duplication Syndrome." Nature Genetics 44, no. 2 (January 8, 2012): 206–11. <a href="https://doi.org/10.1038/ng.1066">https://doi.org/10.1038/ng.1066</a>. → article cited as a reference from "Autism-like Behaviours and Germline Transmission in Transgenic Monkeys Overexpressing MeCP2." by Liu Zhen and Xiao Li

Harrison Marissa, and A E. Hall. "Anthropomorphism, Empathy, and Perceived Communicative Ability Vary with Phylogenetic Relatedness to Humans." Journal of Social, Evolutionary, and Cultural Psychology 4 (January 1, 2010): 34. <a href="https://doi.org/10.1037/h0099303">https://doi.org/10.1037/h0099303</a>. → interesting article about the link between apathy and phylogeny that makes a crucial point in my argumentation

Perlman, Robert L. "Mouse Models of Human Disease." Evolution, Medicine, and Public Health 2016, no. 1 (May 21, 2016): 170–76.

https://doi.org/10.1093/emph/eow014. → useful to support that monkey model of human illnesses are better to study neurodegenerative diseases than mice

## Journalistic Articles:

<u>About CRISPR and transgenic animals</u>: → both articles questions ethical issues of gene-edited animals

Reardon Sara. "CRISPR Gene-Editing Creates Wave of Exotic Model Organisms." Nature 568 (April 23, 2019): 441. https://doi.org/10.1038/d41586-019-01300-9.

SARA REARDON. "Welcome to the CRISPR Zoo." Nature News 531, no. 7593 (March 10, 2016): 160. https://doi.org/10.1038/531160a.

#### **About Legislation:**

• On primates :  $\rightarrow$  All of these articles helped me argument the paragraph on monkey legal status

Suran Melissa, and Howard Wolinsky. "The End of Monkey Research? New Legislation and Public Pressure Could Jeopardize Research with Primates in Both Europe and the USA." EMBO Reports 10, no. 10 (October 2009): 1080–82. <a href="https://doi.org/10.1038/embor.2009.214">https://doi.org/10.1038/embor.2009.214</a>.

"Declaration on Great Apes" Archived 2008-08-20 at the Wayback Machine, Great Ape Project.

"Worldwide Historical Animal Research Statistics" https://speakingofresearch.com/facts/animal-research-statistics/historical-animal-research-statistics/, Speaking of Research.

"UN Declaration of Human Rights". un.org. Retrieved 2 April 2018.

Thomas Rose (2007-08-02). "Going ape over human rights". CBC News. Archived from the original on 2010-02-03. Retrieved 2008-06-26.

Guldberg Helen. The great ape debate, Spiked online, March 29, 2001. Retrieved August 12, 2007.

"The Boyd Group Papers on the use of Non-Human Primates in research and testing", The Boyd Group, British Psychological Society, 2002.

"La réglementation." Recherche animale. Accessed May 15, 2019. https://www.recherche-animale.org/decouvrir-la-recherche-animale/la-reglementation.  $\rightarrow$  this one was particularly interesting, I had a hard time finding the data they provided

## • On genome edditing technics :

S. Lander, Eric, Françoise Baylis, Feng Zhang, Emmanuelle Charpentier, Paul Berg, Catherine Bourgain, Bärbel Friedrich, et al. "Adopt a Moratorium on Heritable Genome Editing." Nature 567 (March 1, 2019): 165–68. <a href="https://doi.org/10.1038/d41586-019-00726-5">https://doi.org/10.1038/d41586-019-00726-5</a>. → this article was particularly exciting because it calls for strict regulation of genome editing use

<u>About Transgenic Primates in Newspapers</u>: → the press reviewed the experiments to make transgenic monkeys

"Chine: des chercheurs font naître 5 clones d'un singe génétiquement modifié." Sciences et Avenir. Accessed May 14, 2019.

https://www.sciencesetayenir.fr/animaux/chine-des-chercheurs-font-naître-5-cl

https://www.sciencesetavenir.fr/animaux/chine-des-chercheurs-font-naitre-5-clones-de-singe 131003.

"Chine : des scientifiques implantent à des macaques un gène du cerveau humain." Franceinfo, April 11, 2019.

https://www.francetvinfo.fr/sante/biologie-genetique/chine-des-scientifiques-implantent-a-des-singes-un-gene-du-cerveau-humain 3275997.html.

"Chinese Effort to Clone Gene-Edited Monkeys Kicks Off." Accessed May 14, 2019. <a href="https://www.nature.com/articles/d41586-019-00292-w">https://www.nature.com/articles/d41586-019-00292-w</a>

"En Chine, des scientifiques implantent à des singes un gène du cerveau humain," April 11, 2019.

https://www.lemonde.fr/sciences/article/2019/04/11/en-chine-des-scientifiques-implantent-a-des-singes-un-gene-du-cerveau-humain 5448964 1650684.html  $\rightarrow$  Le Monde was where I first encounter this research subject. It was by reading their articles that I had the idea to work on the creation of transgenic primates

#### Irina DELAMARE

Gene-Edited Disease Monkeys Cloned in China. Accessed May 14, 2019. <a href="https://www.eurekalert.org/pub">https://www.eurekalert.org/pub</a> releases/2019-01/scp-gdm012119.php

"Monkeys Genetically Edited to Mimic Human Brain Development." The Scientist Magazine®. Accessed May 14, 2019.

https://www.the-scientist.com/news-opinion/monkeys-genetically-edited-to-mimic-human-brain-development-65724

"Scientists Clone Gene-Edited Monkey for Circadian Disorder Research." Engadget. Accessed May 14, 2019.

https://www.engadget.com/2019/01/25/gene-edited-monkey-clones/

Ye Yvaine. "Meet the Man Who Made CRISPR Monkey Clones to Study Depression." New Scientist. Accessed May 14, 2019.

https://www.newscientist.com/article/2194061-meet-the-man-who-made-crispr-monkey-clones-to-study-depression/

"First Monkey Genetically Engineered to Have Parkinson's Created | New Scientist." Accessed May 14, 2019.

https://www.newscientist.com/article/mg23030784-200-first-monkey-model-of-parkinsons/

Health. "Chinese Scientists Give Monkeys Human Brain Genes in 'Morally Risky' Experiment | National Post," April 12, 2019.

https://nationalpost.com/health/chinese-scientists-give-monkeys-human-brain-genes-in-morally-risky-experiment.  $\rightarrow$  I particularly enjoy this article. Every other articles gave the basic same set of information and were all made with the same weft. However, this one gave me new information.

#### **About Ethics:**

Dvorsky, George. "When Does an Animal Count as a Person?" io9. Accessed May 15, 2019.

<u>https://io9.gizmodo.com/when-does-an-animal-count-as-a-person-5961226</u>.  $\rightarrow$  *Interesting articles that make you think.* 

# About CRISPR and the first transgenic humans:

"China's CRISPR Twins: A Time Line of News." MIT Technology Review. Accessed May 15, 2019.

https://www.technologyreview.com/s/613007/chinas-crispr-twins-a-timeline-of-news/.

NormileNov. 26, Dennis, 2018, and 1:10 Pm. "CRISPR Bombshell: Chinese Researcher Claims to Have Created Gene-Edited Twins." Science | AAAS, November 26, 2018.

https://www.sciencemag.org/news/2018/11/crispr-bombshell-chinese-researcher-claims-have-created-gene-edited-twins.

Wikipédia Articles:  $\rightarrow$  *I used Wikipedia to complete some information that I could not find on the web with reliable enough sources.* 

Communauté Wikipédia, article "Animal testing on non-human primates". Dernière révision le 24 avril 2019. Wikipédia, l'encyclopédie libre. [consulté le 12/05/2019].

Communauté Wikipédia, article "Consciousness". Dernière révision le 26 avril 2019. Wikipédia, l'encyclopédie libre. [consulté le 14/05/2019].

Communauté Wikipédia, article "Primate cognition". Dernière révision le 24 Janvier 2019. Wikipédia, l'encyclopédie libre. [consulté le 14/05/2019].

Communauté Wikipédia, article "CRISPR". Dernière révision le 14 mai 2019. Wikipédia, l'encyclopédie libre. [consulté le 15/05/2019].

Communauté Wikipédia, article "Eugenics". Dernière révision le 10 mai 2019. Wikipédia, l'encyclopédie libre. [consulté le 15/05/2019].