



**PUBLICATIONS ON HYB4 HYBRIDIZATION SYSTEM USE.  
(2003 – 2017; Last update: April 2017)**

**2017.**

**[Determining the fidelity of tRNA aminoacylation via microarrays.](#)**

Michael H. Schwartz, and Tao Pan.

*Methods*, 15 January 2017; 113: 27-33 (Hyb4/Hyb12)

**2016.**

**[A dual fluorescent reporter for the investigation of methionine mistranslation in live cells.](#)**

Ana Cristina Gomes, Anna J. Kordala, Rita Strack, Xiaoyun Wang, Renaud Geslain, Kamila Delaney, Wesley C. Clark, Robert Keenan, and Tao Pan.

*RNA*, March 2016; 22(3): 467-476.

**[Discharging tRNAs: a tug of war between translation and detoxification in Escherichia coli.](#)**

Irem Avcilar-Kucukgoze, Alexander Bartholomäus, Juan A. Cordero Varela, Robert Franz-Xaver Kaml, Peter Neubauer, Nediljko Budisa, and Zoya Ignatova.

*Nucleic Acids Research*, 30 September 2016; 44(17): 8324-8334

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5041488/pdf/gkw697.pdf>

**[Codon optimality controls differential mRNA translation during amino acid starvation.](#)**

Mridusmita Saikia, Xiaoyun Wang, Yuanhui Mao, Ji Wan, Tao Pan, and Shu-Bing Qian.

*RNA*, November 2016; 22(11): 1719-1727.

<http://rnajournal.cshlp.org/content/22/11/1719.long>

**2014.**

**[Nucleobase characterisation.](#)**

Inventors: Mark Bradley and Juan J. Diaz-Mochon.

*United States Patent*: US 8716457 B2, Publication Date: 6 May 2014;

<https://www.google.com/patents/US8716457>

2013.

**[Vaccinia and influenza A viruses select rather than adjust tRNAs to optimize translation.](#)**

Mariana Pavon-Eternod, Alexandre David, Kimberly Dittmar, Peter Berglund, Tao Pan, Jack R. Bennink, and Jonathan W. Yewdell.

*Nucleic Acids Research*, February 2013; 41(3): 1914-1921.

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**[Isolierung und funktionelle Charakterisierung neuartiger Hydrogenasen sowie synthetischer \[FeS\] Cluster Proteine.](#)**

Jana Riethausen

*Ph.D. Theses*, 27 May 2013; Heinrich-Heine-Universität Düsseldorf, Germany, 217 pp.

[http://docserv.uni-duesseldorf.de/servlets/DerivateServlet/Derivate-27890/Riethausen\\_Dissertation\\_final.pdf](http://docserv.uni-duesseldorf.de/servlets/DerivateServlet/Derivate-27890/Riethausen_Dissertation_final.pdf)

**[Measurement device used for specifically detecting substance to be examined using photocurrent, sensor unit used for same, and method for specifically detecting substance to be examined using photocurrent.](#)**

Inventors: Makoto Bekki, and Shuji Sonezaki.

*United States Patent*: US 8501492 B2, Publication Date: 6 August 2013.

<https://www.google.com/patents/US8501492>

2012.

**[Spider glue proteins have distinct architectures compared with traditional spidroin family members.](#)**

Keshav Vasanthavada, Xiaoyi Hu, Tiffany Tuton-Blasingame, Yang Hsia, Sujatha Sampath, Ryan Pacheco, Jordan Freeark et al. Arnold M. Falick, Simon Tang, Justine Fong, Kristin Kohler, Coby La Mattina-Hawkins and Craig Vierra

*Journal of Biological Chemistry*, 19 October 2012; 287(43): 35986-35999.

<http://www.jbc.org/content/287/43/35986.full>

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Elizabeth Wiltrot, Jeffrey M. Goodenbour, Mathieu Fréchin, and Tao Pan.

*Nucleic Acids Research*, 2 November 2012; 40(20):10494-10506, 13 pp.

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**[Genome-wide identification and quantitative analysis of cleaved tRNA fragments induced by cellular stress.](#)**

Mridusmita Saikia, Dawid Krokowski, Bo-Jhih Guan, Pavel Ivanov, Marc Parisien, Guo-fu Hu, Paul Anderson, Tao Pan, and Maria Hatzoglou.

*Journal of Biological Chemistry*, 14 December 2012; 287(51): 42708-42725.

<http://www.jbc.org/content/287/51/42708.full.pdf+html>

**2011.**

**Nucleobase characterisation.**

Inventors: Mark Bradley, Juan J. Diaz-Mochon

*US Patent Application*: US 2011/0028337 A1, Publication Date: 3 February 2011;

<http://www.google.com/patents/US20110028337>

**C terminus of *Clostridium perfringens* enterotoxin downregulates CLDN4 and sensitizes ovarian cancer cells to Taxol and Carboplatin.**

Zhijian Gao, Xiaoyin Xu, Bruce McClane, Qing Zeng, Babak Litkouhi, William R. Welch, Ross S. Berkowitz, Samuel C. Mok, and Elizabeth I.O. Garner

*Clinical Cancer Research*, 1 March 2011; 17(5): 1065-1074

<http://clincancerres.aacrjournals.org/content/17/5/1065.full.pdf+html>

**Misacylation of specific nonmethionyl tRNAs by a bacterial methionyl-tRNA synthetase.**

Thomas E. Jones, Rebecca W. Alexander, and Tao Pan

*Proceedings National Academy of Sciences USA*, 26 April 2011; 108(17): 6933-6938

<http://www.pnas.org/content/108/17/6933.full>

**Regulation of Cell Division, Biofilm Formation, and Virulence by FlhC in *Escherichia coli* O157:H7 Grown on Meat.**

Preeti Sule, Shelley M. Horne, Catherine M. Logue, and Birgit M. Prüß

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<http://aem.asm.org/content/77/11/3653.full.pdf+html>

**Microarray generation of thousand-member oligonucleotide libraries.**

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*PLoS One*, 23 September 2011; 6(9): e24906, 8 pp.

<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0024906#pone-0024906-g004>

**2010.**

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John Zaborske, Tao Pan

*J Visualized Experiments*, 18 June 2010; 40: e2007, 3 pp.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3153904/>

**Genome-wide analysis of N<sup>1</sup>-methyl-adenosine modification in human tRNAs**

Mridusmita Saikia, Ye Fu, Mariana Pavon-Eternod, Chuan He and Tao Pan

*RNA*, July 2010; 16(7): 1317-1327.

<http://rnajournal.cshlp.org/content/16/7/1317.full>

**tRNAs as Biomarkers and Regulators for Breast Cancer.**

Tao Pan, and Marsha Rosner

*Final U.S. DTIC Grant Report*, August 2010; Chicago University, IL, USA, 30 pp.

<http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA540678>

**Detection and Isolation of Selected Genes of Interest from Metagenomic Libraries by a DNA Microarray Approach.**

Gopal P. Pathak and Wolfgang Gärtner

*Methods in Molecular Biology*, 2010; 668 (Metagenomics): 299-312

**2009.**

**Multicompartment device comprising immobilized biopolymers for use in analyzing the results of hybridization reactions involving nucleic acids and proteins.**

Inventor: Joseph P. Fredrick

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Ying Zhou, Jeffrey M. Goodenbour, Lucy A. Godley, Amittha Wickrema and Tao Pan

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**Novel blue light-sensitive proteins from a metagenomic approach.**

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Christina Vlachouli

*Ph.D. Theses*, 7 October 2009; S.I.S.S.A. - I.S.A.S., Trieste, Italy, 184 pp.

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**Innate immune and chemically triggered oxidative stress modifies translational fidelity.**

Nir Netzer, Jeffrey M. Goodenbour, Alexandre David, Kimberly A. Dittmar, Richard B. Jones, Jeffrey R. Schneider, David Boone, Eva M. Eves, Marsha R. Rosner, James S. Gibbs, Alan Embry, Brian Dolan, Suman Das, Heather D. Hickman, Peter Berglund, Jack R. Bennink, Jonathan W. Yewdell & Tao Pan

*Nature*, 26 November 2009; 462(7272): 522-526.

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**tRNA over-expression in breast cancer and functional consequences.**

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*Nucleic Acids Research*, November 2009; 37(21): 7268-7280.

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**Use of genomic DNA as an indirect reference for identifying gender-associated transcripts in morphologically identical, but chromosomally distinct, *Schistosoma mansoni* cercariae.**

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**2006.**

**Global gene regulation in *Yersinia enterocolitica*: effect of FliA on the expression levels of flagellar and plasmid-encoded virulence genes.**

Shelley M. Horne and Birgit M. Prüß

*Archives Microbiology*, March 2006; 185(2): 115-126

**DNA Microarray Analysis**

Yasuko Sasaki

**腸内フローラの構造解析—DNA**

**マイクロアレイによる腸内細菌および細菌叢の解析—**

佐々木泰子.

腸内細菌学雑誌 (Journal of Intestinal Microbiology), 25 May 2006; 20(2): 193-199.

[https://www.jstage.jst.go.jp/article/jim/20/2/20\\_2\\_193/article/-char/ja/](https://www.jstage.jst.go.jp/article/jim/20/2/20_2_193/article/-char/ja/)

**Detekcja ekspresji genów drzew leśnych za pomocą mikromacierzy DNA. (Gene-expression in forest-tree species assessed with microarrays as a tool)**

Justyna A. Nowakowska

*Sylwan*, 2006; 4(33): 43.

[http://www.researchgate.net/profile/Justyna\\_Nowakowska/publication/259840860\\_Geneexpression\\_in\\_foresttree\\_species\\_assessed\\_with\\_microarrays\\_as\\_a\\_tool/links/00b7d52e1247e33ea400000.pdf](http://www.researchgate.net/profile/Justyna_Nowakowska/publication/259840860_Geneexpression_in_foresttree_species_assessed_with_microarrays_as_a_tool/links/00b7d52e1247e33ea400000.pdf)

**2005.**

**Apparatus for substrate handling.**

Inventor: Joseph P. Fredrick

*EU Patent Application*: EP 2004/0254856 A2; Publication Date: 23 February 2005

**Apparatus for substrate handling.**

Inventor: Joseph P. Fredrick

*US Patent Application*: US 2005/0042768 A1; Publication Date: 24 February 2005

**2003.**

**[Sequence Mapping of Combinatorial Libraries on Macro- or Microarrays Experimental Design of DNA Arrays.](#)**

Valérie Abécassis, Gilles Truan, Loïc Jaffrelo and Denis Pompon

*Methods in Molecular Biology*, 2003; 231(II, Directed Evolution Library Creation): 189-198