

Curriculum Vitae

Personal information

Name: Yanwu Guo Gender: Male Birth Date: June 1, 1983 Nationality: China
Personal information: Married, 3 children
Address: Friedrich Miescher Institute for Biomedical Research (FMI)
Maulbeerstrasse 66, CH-4058 Basel, Switzerland
Phone: +41 765 257 443 Email: yanwu.guo@fmi.ch Website: <http://www.yanwu.me>

Education

Mar.2011-Aug.2014: **PhD**, Institute of Biochemistry and Biophysics, Polish Academy of Sciences, Warsaw, Poland
Sep.2006-Jan.2010: **M.S.**, Institute of Botany, Chinese Academy of Sciences, Beijing, China
Sep.2002-Jun.2006: **B.S.**, College of Life Sciences, Agricultural University of Hebei, Baoding, China

Work experience

Sep.2014-Present: Postdoc Fellow, in Friedrich Miescher Institute for Biomedical Research, Basel, Switzerland.
Jan.2010-Feb.2011: Research assistant, in National Institute of Biological sciences, Beijing, China.
Jan.2006-Sep.2006: Intern, in NorthElite Biotech Company, Beijing, China.

Technical skills

Bioinformatics: Linux (shell script), R, Bioconductor, Python, DNA-seq, RNA-seq and Bisulfite-seq data processing, statistics and machine learning, SQL database.

Molecular biology: DNA, RNA and protein extraction, Chromatin immunoprecipitation, immunoprecipitation, Northern, Southern, Yeast two hybrid, *in situ* hybridization, genetic mapping.

Genetics: *Arabidopsis* genetics, *C. elegans* genetics.

Biochemistry: High Pressure Liquid Chromatography (HPLC), Thin Layer Chromatography (TLC)

Electronics and 3D printing: Arduino and Raspberry Pi, OpenSCAD.

Teaching & Organization

Gave "Introduction to bioinformatics and R" lectures for lab members in Ciosk's lab in FMI, contents including: Basic Linux, R and statistics for NGS data analysis.

Organized Electronics workshops at Starshipfactory Fablab in Basel <https://www.starship-factory.ch/>

Organized Electronics workshop – Vibra Drot Bot for kids in Basel <http://www.hei.do/aktion-vibra-drot-bot/>

Conference & Workshop

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| Nuclear Structure & Dynamics | 28 Sept-02 Oct 2011 | L'Isle sur la Sorgue | France |
| EMBO Young Scientists Forum | 30 Jun - Jul 2011 | Warsaw | Poland |
| Epigenetics, Chromatin & Transcription | 23 Apr- 27Apr 2012 | Suzhou | China |
| 2 nd course Non-coding genome | 10 Dec-14 Dec 2012 | Paris | France |
| Systems Modeling Workshop | 8 Nov - 12 Nov 2015 | Schwarzenberg | Switzerland |
| 21st International <i>C. elegans</i> Meeting | 21 Jun - 25 Jun 2017 | UCLA | USA |
| Basel Life (EMBO) | 11 Sept – 14 Sept 2017 | Basel | Switzerland |

Certificates & Trainings

D3 (Drug Discovery and Development) Project Simulation. NOVARTIS AG, Basel

Image Processing Fundamentals course. FMI, Basel

Bioinformatics of long read sequencing. SystemsX.ch/SIB (Swiss Institute of Bioinformatics)

Machine learning. [Certificate earned on Coursera](#)

Systems Modeling (Matlab). SystemsX.ch/SIB (Swiss Institute of Bioinformatics)

Using Databases with Python. [Certificate earned on Coursera](#)

Capstone: Retrieving, Processing, and Visualizing Data with Python. [Certificate earned on Coursera](#)

Patents

1. The coding sequence and application of Resvetral synthase gene cloned from *Polygonum cuspidatum*. **Patent No. 200910078833.9 (in China)**
2. Method and kit for cloning 5'-end of gene sequence. **Patent No. 200910078834.3 (in China)**
3. Low-cost and USB powered thermocycler for ployerase chain reaction (PCR). **(Application in China)**

Publications

1. **Yanwu Guo**, Rafal Ciosk. CLK-2 is involved in Nonsense-mediated mRNA decay (NMD) pathway in *C.elegans* **(Being prepared for publication)**
2. Cornelia Habacher, **Yanwu Guo**, Richard Venz, Pooja Kumari, Anca Neagu, Dimos Gaidatzis, Eva B. Harvald, Nils J. Færgeman, Heinz Gut, Rafal Ciosk. 2016. Ribonuclease-Mediated Control of Body Fat. *Developmental Cell*. DOI: 10.1016/j.devcel.2016.09.018
3. Malgorzata Cyrek, Halina Fedak, Arkadiusz Ciesielski, **Yanwu Guo**, Aleksandra Sliwa, Lien Brzezniak, Katarzyna Krzyczmonik, Zbigniew Pietras, Szymon Kaczanowski, Fuquan Liu, Szymon Swiezewski. 2016. Seed Dormancy in *Arabidopsis* Is Controlled by Alternative Polyadenylation of DOG1. *Plant Physiology*. DOI: <https://doi.org/10.1104/pp.15.01483>
4. Jakub Dolata, **Yanwu Guo***, Agnieszka Kołowerzo, Dariusz Smoliński, Grzegorz Brzyżek, Artur Jarmołowski and Szymon Świeżewski*. 2015. NTR1 is required for transcription elongation checkpoints at alternative exons in *Arabidopsis*. *The EMBO Journal*. DOI: 10.15252/embj.201489478 **(Co-first authors and Co-corresponding authors)**
5. **Yanwu Guo**, Huili Guo, Xing Li, Lili Huang, Boning Zhang, Xiaobin Pang, Benye Liu, Lanqing Ma, Hong Wang. 2013. Two type III polyketide synthases from *Polygonum cuspidatum*: gene structure, evolutionary route and metabolites. *Plant Biotechnology Reports*. DOI: 10.1007/s11816-012-0271-y
6. Hong Zhang, **Yanwu Guo**, Yadong Yang, Yijiao Ma, Benye Liu, Hechun Ye, Hong Wang, Lanqing Ma. 2012. Cloning of a novel type III polyketide synthase encoded by a three-intron gene from *Polygonum cuspidatum*. *Journal of Plant Biochemistry and Biotechnology*. DOI: 10.1007/s13562-012-0184-4
7. Cuijun Zhang, Yongqiang Ning, Suwei Zhang, Qing Chen, Changrong Shao, **Yanwu Guo**, Jinxing Zhou, Lin Li, She Chen, Xinjian He. 2012 IDN2 and Its Paralogs Form a Complex Required for RNA-Directed DNA Methylation. *PLOS Genetics*. DOI:10.1371/journal.pgen.1002693
8. **Yanwu Guo**, Lanqing Ma, Gaobin Pu, Benye Liu, Guofeng Li, Hechun Ye, Hong Wang. Isolation of the 5'-end of plant gene from genomic DNA by TATA-box based degenerate primers. 2011 *Molecular Biotechnology*. DOI:

10.1007/s12033-010-9323-0

9. Lanqing Ma, Yanwu Guo, Dongyao Gao, Dongming Ma, Younian Wang, Guofeng Li, Benye Liu, Hong Wang, Hechun Ye. 2009. Identification of a *Polygonum cuspidatum* three-intron gene encoding a type III polyketide synthase producing both naringenin and p-hydroxybenzalacetone. *Planta*.229 (5): 1077-1086
10. Dongming Ma, Gaobing Pu, Caiyan Lei, Lanqing Ma, Huanghong Wang, Yanwu Guo, Jianlin Chen, Zhigao Du, Hong Wang, Guofeng Li, Hechun Ye, Benye Liu. 2009. Isolation and Characterization of AaWRKY1, an *Artemisia annua* Transcription Factor that Regulates the Amorpha-4,11-diene Synthase Gene, a Key Gene of Artemisinin Biosynthesis. *Plant and Cell Physiology*. 50(12): 2146-2161