

# Yonghui Dong

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## Education

- 2010.11-2014.06 Ph.D. Biostatistics and Chemometric Group, Fondazione Edmund Mach, Italy  
Physics Department, Trento University, Italy (Magna Cum Laude)  
Mass Spectrometry Group, Max Planck Institute for Chemical Ecology, Germany (Visiting student)
- PhD degree in Science
  - Supervisors: Dr. Pietro Franceschi, Dr. Fulvio Mattivi & Prof. Guella Graziano
  - Thesis: Mass Spectrometry Imaging: Looking Fruits at Molecular Level
- 2008.09-2010.09 M.Sc. Department of Agricultural Sciences, University of Bologna, Italy (110L/110, Cum Laude)  
School of Life Sciences, Munich University of Technology, Germany (Distinction)  
University of Natural Resources and Applied Life Sciences, Austria (Distinction)
- Multiple M.Sc. degrees in Horticultural Sciences
  - Supervisors: Dr. Stefano Tartarini, Dr. Luca Dondini & Prof. Dieter Treutter
  - Thesis: QTL Analysis of Sugars and Organic Acids in Apricot
- 2003.09-2008.09 B.Sc. College of Life Science, Northwest A&F University, China
- B.Sc. in Bioengineering
  - Supervisor: Prof. Zhihui Cheng
  - Thesis: Effects of UV-C on the control of cucumber powdery mildew

## Working Experience

- 2014.12-now Postdoc Department of Plant and Environmental Sciences, Weizmann Institute of Science, Israel
- Supervisor: Prof. Asaph Aharoni
  - Research project: Dual Isotope Labeling for Metabolome Analysis and Pathway Elucidation Using LC-MS and MALDI Imaging.
- 2014.07-2014.11 Research associate Physics Department, Trento University, Italy
- Supervisor: Prof. Guella Graziano
  - Research project: Coupled TLC-MALDI-TOF MS imaging analysis of the lipid extracts from vitis vinifera cell cultures

## Research Interests & Skills

- MS Imaging:
  - MALDI/DESI imaging
- Metabolomics:
  - MS-based Metabolomics
- Biostatistics:
  - Data pre-processing
  - Univariate and multivariate analysis
  - Data visualization
- Histology

MS Instrumentation & Software	<ul style="list-style-type: none"> <li>• DESI/ESI/APCI/MALDI-Orbitrap (Thermo Fisher); Software: Imagequest, Xcalibur</li> <li>• MALDI-micro MX-TOF (Waters); Software: Masslyn, Biomap</li> <li>• MALDI-Ultraflex II TOF/TOF (Bruker); Software: FlexControl, FlexAnalysis, FlexImaging</li> <li>• ESI/MALDI FT-ICR Solarix, (Bruker); Software: FtmControl, FlexImaging, ProfileAnalysis, SciLS Lab</li> </ul>
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## Research Papers

1. Franceschi P, **Dong Y**, Strupat K, Vrhovsek U, Mattivi F. Combining Intensity Correlation Analysis and MALDI Imaging to Study the Distribution of Flavonols and Dihydrochalcones in Golden Delicious Apples. *Journal of Experimental Botany*. 63, 1123-1133, 2012.
2. **Dong Y**, Graziano G, Mattivi F, Franceschi P. High production of small organic dicarboxylate dianions by DESI and ESI. *Journal of The American Society for Mass Spectrometry*. 26, 386- 389, 2015.
3. Li B, Dunham J.B.S, **Dong Y**, Yoon S, Zeng M, Sweedler J.V. Analytical capabilities of mass spectrometry imaging and its potential applications in food science. *Trends in Food Science & Technology*. 47, 50-63, 2016.
4. Qu D, Meng R, Yan F, Jiang X, Yang H, Gao Z, **Dong Y**, Yang Y, Zhao Z. Identification and characterization of microRNAs and Their Targets to Fruit Bagging and Subsequent Sunlight Re-exposure in the 'Granny Smith' Apple exocarp Using High-throughput Sequencing. *Frontiers in Plant Science*. 7, doi:10.3389/fpls.2016.00027, 2016.
5. **Dong Y**, Graziano G, Mattivi F, Franceschi P. Impact of tissue surface properties on the desorption electrospray ionization imaging of organic acids in grapevine stem. *Rapid communication in Mass Spectrometry*. 30, 711-718, 2016.
6. **Dong Y**, Li B, Aharoni A, Malitsky S, Rogachev I, Kaftan F, Svatoš A, Franceschi P. Sample preparation for mass spectrometry imaging of plant tissues: a review. *Frontiers in Plant Science*. 7, doi:10.3389/fpls.2016.00060, 2016.
7. **Dong Y**, Li B, Aharoni A. More than Pictures: When MS Imaging meets Histology. *Trends in Plant Sciences*. Doi: 10.1016/j.tplants.2016.04.007, 2016.

## Posters & Talks

1. **Dong Y**, Franceschi P, Mattivi F, Vrhovsek U, Wehrens R. MS Imaging of Small Metabolites in Fruits. Ourense Conference on Imaging Mass Spectrometry, Ourense, Spain. Oral Presentation, 2012.
2. **Dong Y**, Franceschi P, Mattivi F, Vrhovsek U, Wehrens R. Poster. MS Imaging of Metabolites in Fruits. 3rd MS Food day, Trento, Italy. Poster, 2013.
3. **Dong Y**, Guella G, Mattivi F, Franceschi P. Poster. Tissue Surface Properties Jeopardize Quantitative DESI Imaging of Organic Acids in Grapevine Stem. 20th International Mass Spectrometry Conference, Geneva, Switzerland. Poster, 2014.
4. **Dong Y**, Malitsky S, Rogachev I, Heinig U, Aharoni A. Mass Spectrometry Imaging of Plant Metabolites. *Isranalytica* 2015. Israel. Poster, 2015.
5. **Dong Y**. More than Pictures: When MS Imaging Meets Histology. Spring school for advanced Imaging in Biological research, Israel. Oral Presentation, 2017.
6. **Dong Y**, Application of MS Imaging in Plant Sciences. Mass Spectrometry Imaging Symposium, France. Invited Speaker, 2017.

## Honors & Awards

2014	COST Action FA1101 trainee fellowship in saffronomics, Spain
2011	Trento University PhD scholarship, Italy
2010	FEM GMPF scholarship, Italy
2008	Erasmus Mundus Scholarship, EU
2005	China Undergraduate Mathematical Contest in Modeling First Prize in Shaanxi Province, China

## Language Skills

Chinese	Mother tongue
English	C1
Italian	B1
German	A2

