

# 董永辉

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## 教育背景

- 2010.11-2014.06 生物统计/化学计量学课题组, Edmund Mach 研究所, 意大利  
博士  
生物有机化学课题组, 特伦托大学, 意大利 (*magna cum laude*)  
质谱/蛋白组学课题组, 马普化学生态学研究所, 德国 (访问学生)
- 导师: Dr.Pietro Franceschi, Dr.Fulvio Mattivi & Prof.Guella Graziano
  - 论文: 代谢成像技术在活体分子水平上的植物功能代谢研究
- 2008.09-2010.09 农学院, 博洛尼亚大学, 意大利 (*cum laude*)  
硕士  
生命科学系, 慕尼黑工业大学, 德国 (Distinction)  
维也纳自然资源和應用生命科学大学, 奥地利 (Distinction)
- 导师: Dr. Stefano Tartarini, Dr. Luca Dondini & Prof. Dieter Treutter
  - 论文: 杏糖, 酸数量性状基因定位及关联作图
- 2003.09-2008.09 生命科学与技术基地班, 西北农林科技大学, 中国  
学士
- 导师: Prof. Zhihui Cheng
  - 论文: 紫外线(UV-C)对黄瓜白粉病的防治研究

## 工作经历

- 2014.12-至今 博士 希伯来大学农学院, 以色列  
后 威兹曼研究所, 以色列
- 导师: Prof.Asaph Aharoni
  - 研究课题: 基质辅助激光解吸电离质谱成像技术(MALDI imaging)在植物代谢组学中的应用
- 2014.07-2014.11 物理学院, 特伦托大学, 意大利  
研究助理
- 导师: Prof.Guella Graziano
  - 研究课题: 基于薄层色谱 (TLC)-基质辅助激光解吸电离飞行时间质谱 (MALDI-TOF) 的快速脂代谢组学分析

## 研究兴趣与技能

- 代谢成像学:
- 基质辅助激光解吸电离质谱成像技术 (MALDI); 电喷雾解吸电离质谱成像技术 (DESI)
- 代谢组学:
- 基于质谱的代谢组学
- 化学计量学:
- 数据前处理
  - 单元, 多元变量分析
  - 数据可视化
- 显微解剖学
- 精通的质谱仪器与软件
- DESI/ESI/APCI/MALDI-Orbitrap (Thermo Fisher); Software: Imagequest, Xcalibur
  - MALDI-micro MX-TOF (Waters); Software: Masslyn, Biomap
  - MALDI-Ultraflex II TOF/TOF (Bruker); Software: FlexControl, FlexAnalysis, FlexImaging
  - ESI/MALDI FT-ICR Solarix, (Bruker); Software:

## 论文

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.

## 会议海报 & 口头报告

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.

## 奖励

2014	COST Action FA1101 藏红花代谢组学奖学金, 西班牙
2011	特伦托大学全额博士奖学金, 意大利
2010	FEM GMPF 全额博士奖学金, 意大利
2008	Erasmus Mundus 全额奖学金, 欧盟
2005	全国大学生数学建模竞赛陕西省一等奖, 中国

## 语言

中文	母语
英语	C1
意大利语	B1
德语	A2