

**Xinying Suo**

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**EDUCATION AND TRAINING**

**Ph.D. in Life and Health Sciences: Molecular Biology and Cellular Biotechnology**

*University of Camerino* [ 28/03/2019 – 24/11/2022 ]

Address: D'Accorso 16, 62032 Camerino (Italy)

Field(s) of study: Food science and nutrition

Thesis: Modulating pasta quality and nutritional attributes by means of formulation and processing

**Visiting scholar**

*SUNY Buffalo State University* [ 03/2017 – 09/2017 ]

City: Buffalo (NY)

Country: United States

**Master in Food Engineering**

*Zhengzhou University of Light Industry* [ 01/09/2014 – 01/07/2017 ]

Address: Kexue Dadao, 136, 450001 Zhengzhou (China)

Field(s) of study: Food engineering

Thesis: Preparation, Characterization and Photocatalytic Antibacterial Study of Heterocomposite TiO<sub>2</sub> and WO<sub>3</sub>

**Bachelor in Biological Engineering**

*Zhengzhou University of Light Industry* [ 01/09/2010 – 15/07/2014 ]

Address: Kexue Dadao, 136, 450001 Zhengzhou (China)

Field(s) of study: Food Engineering

Thesis: The effect of oxidative stress on sclerotium development of the Morel (*Morchella* spp.)

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**MANAGEMENT AND LEADERSHIP SKILLS**

**Being co-tutor to lead students for their lab activity and thesis**

1. Master student - Yang Qianhui, thesis: Effects of Processing on Physical and Chemical Properties of Acorns
2. Bachelor student - Zuo Yanting, thesis: Emmer: Physico-chemical and Nutritional Characterization

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**LANGUAGE SKILLS**

Mother tongue(s): **Chinese**

Other language(s):

**English**

**LISTENING C1 READING C1 WRITING C1**

**SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1**

*Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user*

## **NETWORKS AND MEMBERSHIPS**

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### **Reviewer of Italian Journal of Food Science**

[ 07/04/2021 – Current ]

## **TRAINING ACTIVITIES**

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### **4th European Summer School on Nutrigenomics**

[ 21/06/2021 – 25/06/2021 ]

Organized by University of Camerino

### **2st International Course 'Healthy Food Design'**

[ 07/06/2021 – 10/06/2021 ]

Organized by the Graduate School VLAG, in co-operation with in Food Quality Design, Wageningen University & Research

### **Open Science: challenges and opportunities to promote knowledge-based innovation of the Food System**

[ 07/04/2021 – 07/04/2021 ]

Webinar: ERASMUS+ Project "ASKFOOD"

## **GRANTS**

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### **Characterization of pasta with improved nutritional quality - Prot. n. 0011110**

[ 01/04/2022 – 30/09/2022 ]

### **Caratterizzazione della qualità chimico-fisica e nutrizionale di prodotti alimentari a base cereali - Ptot. n. 0064176**

[ 15/10/2022 – Current ]

## **PROJECTS**

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### **Characterization of MELTEC, a plant fiber syrup. BVC100002**

Sponsored by HI FOOD SPA. Italy.

### **Characterization of pasta with legumes: effect of the formulation on the texture, sensory acceptability and digestibility of starch in gluten-free pasta. BVC100019**

Sponsored by Massimo Zero Srl. Italy.

### **Acorn: a resource of landscape and food tradition of the Marche region to be rediscovered and valorized**

[ 01/11/2022 – 15/10/2023 ]

BioAcornScape Project (ID 59711), PSR Regione Marche 2014/2022 - M16.1.A.2 Finanziamento dei Gruppi Operativi - FA 2A, Italy.

## **DIGITAL SKILLS**

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Statistical and predictive modelling / Analyze Data Using SPSS / Origin Pro: proficient at scientific data processing / Software statistico per excel (XLSTAT) / Independent user with chemistry-related softwares/tools like HyperChem Fiji/ImageJ and Spectragryth / Gute Kenntnisse in Bildbearbeitung (Adobe Photoshop Gimp)

## **CONFERENCES AND SEMINARS**

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### **16th Baltic Conference on Food Science and Technology FOODBALT 2023**

[ Jelgava, Latvia, 11/05/2023 – 12/05/2023 ]

Hosted by the Latvia University of Life Sciences and Technologies

**Oral presentation:**

**APPLICATION OF ACORN FLOUR IN LEAVENED BREAD PRODUCTS**

**Xinying Suo**, Luigi Moriconi, Leonardo Peverini, Antonietta La Terza, Elena Vittadini

**20th European Young Cereal Scientists and Technologists Workshop**

[ Leuven, Belgium, 12/04/2023 – 14/04/2023 ]

Hosted by Cereals&Europe, in collaboration with the Institute of Agrochemistry and Food Technology (KU Leuven)

**Oral presentation:**

DO MACRO- AND MICRO-STRUCTURAL ATTRIBUTES AFFECT CHEWING BEHAVIOUR, STRUCTURE BREAKDOWN AND IN VITRO STARCH DIGESTION OF PASTA?

**Xinying Suo**, Nicoletta Pellegrini, Silvia Vincenzetti, Elena Vittadini

**7th Cereals & Europe Spring Meeting**

[ The MET Hotel in Thessaloniki, Greece, 06/04/2022 – 08/04/2022 ]

Hosted by Cereals & Europe, in collaboration with the International Hellenic University

**Oral presentation:** Quality and in vitro starch digestibility of wholemeal pasta made with pigmented and ancient wheats

**Xinying Suo**, Francesca Pompei, Matteo Bonfini, Ahmed M. Mustafa, Gianni Sagratini, Elena Vittadini

**4th Food Structure & Functionality Forum Symposium - Structuring Foods for a Sustainable World**

[ Cork, Ireland, 19/10/2021 – 20/10/2021 ]

Hosted by Food Structure and Functionality Forum (FSFF) & Agriculture and Food Development Authority

Poster presentation:

How do macro- and micro-structure affect oral processing and structure breakdown of pasta?

**Xinying Suo**, Ana Carolina Mosca, Nicoletta Pellegrini, Elena Vittadini

**5th PTA Conference on Food and Nutrition and Human and Animal Health**

[ Camerino, Italy, 13/07/2021 – 13/07/2021 ]

Organized by University of Camerino

**Oral presentation:**

The effect of chickpea flour addition levels and flour structures on quality and in vitro starch digestibility of corn-rice-based gluten free pasta

**Xinying Suo**, Margherita Dall'Asta, Gianluca Giuberti, Michele Minucciani, Elena Vittadini

**Bilateral doctoral meeting UNICAM - Jilin Agricultural University**

[ Camerino, Italy, 30/03/2021 – 01/04/2021 ]

Hosted by University of Camerino & Jilin Agricultural University

**Oral presentation:**

The effect of chickpea flour addition levels and flour structures on quality and in vitro starch digestibility of corn-rice-based gluten free pasta

**Xinying Suo**, Elena Vittadini

**XXIV Workshop on the developments in Italian PhD research on Food Science, Technology and Biotechnology**

[ Florence, Italy, 11/09/2019 – 13/09/2019 ]

Hosted by University of Florence

Poster presentation: The Effect of Formulation and Processing on Pasta Quality

Xinying Suo

## 18th European Young Cereal Scientists and Technologists Workshop on Cereals and Grains

[ San Benedetto del Tronto, Italy, 15/04/2019 – 17/04/2019 ]

Organized by University of Camerino

### PUBLICATIONS

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Suo, X., Pompei, F., Bonfini, M., Mustafa, A. M., Sagratini, G., Wang, Z., & Vittadini, E. (2023). Quality of wholemeal pasta made with pigmented and ancient wheats. *International Journal of Gastronomy and Food Science*, 100665.

Moreno-Araiza, O., Boukid, F., Suo, X., Wang, S., Vittadini, E., Pretreated Green Pea Flour as Wheat Flour Substitutes in Composite Bread Making. (2023). *Foods*, 12(12), 2284.

Santanatoglia, A., Nzekoue, F. K., Alesi, A., Ricciutelli, M., Sagratini, G., Suo, X., ... & Caprioli, G. (2023). Development of Innovative Vitamin D Enrichment Designs for Two Typical Italian Fresh Cheeses: Burrata and Giuncata. *Molecules*, 28(3), 1049.

Suo, X., Dall'Asta, M., Giuberti, G., Minucciani, M., Wang, Z., & Vittadini, E. (2022). The effect of chickpea flour and its addition levels on quality and in vitro starch digestibility of corn-rice-based gluten-free pasta . *International Journal of Food Sciences and Nutrition*, 0(0), 1–10.

Suo, X., Mosca, A. C., Pellegrini, N., & Vittadini, E. (2021). Effect of pasta shape and gluten on pasta cooking quality and structural breakdown during mastication. *Food & Function*, 12(22), 11577–11585.

Carcelli, A., Suo, X., Boukid, F., Carini, E., & Vittadini, E. (2021). Original article Semi-solid fibre syrup for sugar reduction in cookies. *International Journal of Food Science and Technology*, 56(10), 5080-5088.

Zhang, J., Wang, X., Suo, X., Liu, X., Liu, B., Yuan, M., ... & Shi, H. (2019). Cellular response of *Escherichia coli* to photocatalysis: Flagellar assembly variation and beyond. *ACS nano*, 13(2), 2004-2014.

Zhang, J., Liu, X., Suo, X., Li, P., Liu, B., & Shi, H. (2017). Facile synthesis of Ag/AgCl/TiO<sub>2</sub> plasmonic photocatalyst with efficiently antibacterial activity. *Materials Letters*, 198, 164-167.

Zhang, J., Suo, X., Zhang, J., Han, B., Li, P., Xue, Y., & Shi, H. (2016). One-pot synthesis of Au/TiO<sub>2</sub> heterostructure composites with SPR effect and its antibacterial activity. *Materials Letters*, 162, 235-237.

Zhang, J., Suo, X., Liu, X., Liu, B., Xue, Y., Mu, L., & Shi, H. (2016). PdO loaded WO<sub>3</sub> composite with Na<sub>2</sub>W<sub>4</sub>O<sub>13</sub> flake: A 2-D heterostructure composite material. *Materials Letters*, 184, 25-28.

Liu, B., Xue, Y., Zhang, J., Wang, D., Xie, T., Suo, X., ... & Shi, H. (2016). Study on photo-induced charge transfer in the heterointerfaces of CuInS<sub>2</sub>/CdS co-sensitized mesoporous TiO<sub>2</sub> photoelectrode. *Electrochimica Acta*, 192, 370-376.

Liu, B., Xue, Y., Zhang, J., Wang, D., Xie, T., Suo, X., ... & Shi, H. (2016). Study on photo-induced charge transfer properties in CdS quantum-dot-sensitized mesoporous TiO<sub>2</sub> photoelectrode. *Journal of Materials Science: Materials in Electronics*, 27(10), 10213-10220.

Effect of “shape” on technological properties and nutritional quality of corn-rice-chickpea gluten free products (2023)

Xinying Suo, Margherita Dall'Asta, Gianluca Giuberti, Michele Minucciani, Zhangcun Wang, Elena Vittadini\* (under review)

## Effect of shape, gluten, and mastication effort on in vitro starch digestion and predicted glycemic index of pasta (2023)

Xinying Suo, Anna Baggio, Nicoletta Pellegrini, Silvia Vincenzetti, Elena Vittadini\* (under review)

### RESEARCH SKILLS

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#### Brief SUM

The intense research study of the past three years allowed Xinying Suo to achieve multi-technological skills in the investigation of the quality and nutrition of pasta with different formulations and processing, including texture analysis, sensory evaluation, SDS-PAGE, investigation of enzyme activity, INFOGEST static in vitro digestion, biochemical and nutritional analysis to determine protein, starch, tryptophan, and fiber.

03/10/2023

AMSH