

Xinying Suo

WORK EXPERIENCE

Multiple Research Contracts

University of Camerino [01/04/2022 – 14/11/2024]

City: Camerino | Country: Italy

Multiple contracts with different titles:

Apr- Oct 2022: Characterisation of pasta with improved nutritional quality

Oct 2022- Oct 2023: Caratterizzazione della qualità chimico-fisica a nutrizionale di prodotti alimentari a base cereali

Oct- Nov 2023: Sviluppo e caratterizzazione di alimenti con farina di ghiande

Nov 2023- Nov 2024: Development and characterization of healthy and sustainable food products (PostDoc)

EDUCATION AND TRAINING

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

University of Camerino [2019 – 2022]

Country: Italy | Field(s) of study: Food technology 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]

Country: United States

Master in Food Engineering

Zhengzhou University of Light Industry [2014 – 2017]

Country: China | Field(s) of study: Food engineering | Thesis: Preparation, Characterization and Photocatalytic Antibacterial Study of Heterocomposite TiO₂ and WO₃

Bachelor in Biological Engineering

Zhengzhou University of Light Industry [2010 – 2014]

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

SKILLS AND EXPERTISE

Food technology and nutrition

- Nutrients; Antioxidants; Functional Foods; Antioxidant Activity; Food Science; Nutrition; Glycemic index; In vivo/vitro digestion; Healthy diet; Sustainability; Phenolic Compounds; Polyphenols; Flavonoids; Volatile organic compounds.

LANGUAGE SKILLS

Mother tongue(s): Chinese

Other language(s):

English

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION C1

SPOKEN INTERACTION C1

Italian

LISTENING A1 READING A1 WRITING A1

SPOKEN PRODUCTION A1

SPOKEN INTERACTION A1

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

NETWORKS AND MEMBERSHIPS

[04/2021 – Current]

Reviewer of Italian Journal of Food Science

[11/2023 – Current]

Reviewer of Food Physics

MANAGEMENT AND LEADERSHIP SKILLS

Co-advisor of 2 master and 6 bachelor students for their thesis, and 3 students for internship activities.

PROJECTS

Participation to different private or non-private research projects:

1. Characterization of MELTEC, a plant fiber syrup. BVC100002 Sponsored by private enterprise, Italy.

2. 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 private enterprise, Italy.

3. Acorn: a resource of landscape and food tradition of the Marche region to be rediscovered and valorized BioAcornScape Project (ID 59711), PSR Regione Marche 2014/2022 - M16.1.A.2 Finanziamento dei Gruppi Operativi - FA 2A, Italy.

4. Development of a functional snack for ameliorating the gut-brain axis of elderly individuals Next GenerationEU - program "MUR-Fondo Promozione e Sviluppo - D.M. 737/2021 – SNACKING, University of Udine.

5. Design and development of probiotic and prebiotic functional cookies to counteract cognitive decline NextGenerationEU - program "MUR-Fondo Promozione e Sviluppo - D.M. 737/2021 - PROTECTIVE, University Research Projects FAR 2022 PNR, University of Camerino.

TRAINING ACTIVITIES

[21/06/2021 – 25/06/2021]

4th European Summer School on Nutrigenomics

Organized by University of Camerino

[07/06/2021 – 10/06/2021]

2nd International PhD Course 'Healthy Food Design'

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

[07/04/2021 – 07/04/2021]

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

Webinar: ERASMUS+ Project "ASKFOOD"

CONFERENCES AND SEMINARS

[08/09/2024 – 12/09/2024] Rimini, Italy

1. 22nd World Congress of Food Science and Technology (IUFOST 2024) Oral presentation:

Symbiotic functional snack for gut-brain axis health

Elena Vittadini, Laura Bonfili, Xinying Suo, Marianna Tagliasco, Matteo Bonfini, Oscar Moreno-Araiza, Martina Moretton, Nicoletta Pellegrini, Anna Maria Eleuteri, Dennis Fiorini

[10/04/2024 – 12/04/2024] Zagreb, Croatia

2. 8th Cereals & Europe Spring Meeting Hosted by the University of Zagreb

Oral presentation (as presenting author):

Modulating red lentil pasta quality by means of applying different processing technologies

Xinying Suo, Oscar Moreno-Araiza, Margherita Dall'Asta, Gianluca Giuberti, Alessio Marchesani, Elena Vittadini

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

3. 16th Baltic Conference on Food Science and Technology FOODBALT 2023 Hosted by the Latvia

University of Life Sciences and Technologies

Oral presentation (as presenting author):

APPLICATION OF ACORN FLOUR IN LEAVENED BREAD PRODUCTS

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

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

4. 20th European Young Cereal Scientists and Technologists Workshop Hosted by Cereals&Europe, in collaboration with the Institute of Agrochemistry and Food Technology (KU Leuven)

Oral presentation (as presenting author):

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

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

5. 7th Cereals & Europe Spring Meeting Hosted by Cereals & Europe, in collaboration with the International Hellenic University

Oral presentation (as presenting author):

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

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

6. 5th PTA Conference on Food and Nutrition and Human and Animal Health Organized by the University of Camerino

Oral presentation (as presenting author):

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

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

7. Bilateral doctoral meeting UNICAM - Jilin Agricultural University (online) Hosted by University of Camerino & Jilin Agricultural University

Oral presentation (as presenting author):

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

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

8. 4th Food Structure & Functionality Forum Symposium - Structuring Foods for a Sustainable World (online) Hosted by the 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

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

9. XXIV Workshop on the developments in Italian PhD research on Food Science, Technology and Biotechnology Hosted by University of Florence

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

Xinying Suo

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

10. 18th European Young Cereal Scientists and Technologists Workshop on Cereals and Grains Organized by University of Camerino

PAPER UNDER REVIEW

1. Suo X., Tagliasco M., Bonfini M., Bonfili L., Moreno-Araiza O., Baggio A., Eleuteri AM., Pellegrini N. and Vittadini E.*. Development of sugar- and fat-reduced legume cookies with improved predicted glycemic behavior
2. Suo X., Tagliasco M., Bonfili L., Bonfini M., Fiorini D, Attili A., Moreno-Araiza O., Eleuteri AM., Pellegrini N. and Vittadini E.*. Development of a synbiotic snack for gut-brain axis health
3. Suo X., Mannozi C., Moriconi L., Piatti D., Bonfili L., Caprioli G., Falistocco G., Sagratini G., La Terza A. and Vittadini E.*. Characterizing Acorn Flour for Bread-Making: Technological and Chemical Insights
4. Suo X., Moreno-Araiza O., Dall'Asta M., Giuberti G., Marchesani A., and Vittadini E.*. Modulating red lentil pasta quality by means of applying different processing technologies

PUBLICATIONS

Total citations: 282; H-index: 9 (accessed from Scopus; Oct. 12th, 2024)

1. Suo X, Baggio A, Pellegrini N, Vincenzetti S, Vittadini E. (2024). Effect of shape, gluten, and mastication effort on in vitro starch digestion and the predicted glycemic index of pasta. *Food & Function*, 15(1):419-426.
2. Suo, X., Dall'Asta, M., Giuberti, G., Minucciani, M., Wang, Z., & Vittadini, E. (2023). Effect of "shape" on technological properties and nutritional quality of chickpea-corn-rice gluten free pasta. *LWT*, 115661.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. Carcelli, A., Suo, X., Boukid, F., Carini, E., & Vittadini, E. (2021). Semi-solid fibre syrup for sugar reduction in cookies. *International Journal of Food Science and Technology*, 56(10), 5080-5088.
9. 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.
10. Zhang, J., Liu, X., Suo, X., Li, P., Liu, B., & Shi, H. (2017). Facile synthesis of Ag/AgCl/TiO₂ plasmonic photocatalyst with efficiently antibacterial activity. *Materials Letters*, 198, 164-167.

11. Liu, B., Xue, Y., Zhang, J., Han, B., Zhang, J., Suo, X., ... & Shi, H. (2017). Visible-light-driven TiO₂/Ag₃PO₄ heterostructures with enhanced antifungal activity against agricultural pathogenic fungi *Fusarium graminearum* and mechanism insight. *Environmental Science: Nano*, 4(1), 255-264.
12. Zhang, J., Suo, X., Zhang, J., Han, B., Li, P., Xue, Y., & Shi, H. (2016). One-pot synthesis of Au/TiO₂ heteronanostructure composites with SPR effect and its antibacterial activity. *Materials Letters*, 162, 235-237.
13. Zhang, J., Suo, X., Liu, X., Liu, B., Xue, Y., Mu, L., & Shi, H. (2016). PdO loaded WO₃ composite with Na₂W₄O₁₃ flake: A 2-D heterostructure composite material. *Materials Letters*, 184, 25-28.
14. 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 CuInS₂/CdS co-sensitized mesoporous TiO₂ photoelectrode. *Electrochimica Acta*, 192, 370-376.
15. 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 TiO₂ photoelectrode. *Journal of Materials Science: Materials in Electronics*, 27(10), 10213-10220.
16. Li, P., Han, B., Zhang, J., Zhang, J., Xue, Y., Suo, X., ... & Shi, H. (2015). Luminescence properties of α-Sr₂P₂O₇: Sm³⁺ phosphor without and with co-doping charge compensation agents. *Journal of Materials Science: Materials in Electronics*, 26, 6329-6334.
17. Han, B., Li, P., Zhang, J., Zhang, J., Xue, Y., Suo, X., ... & Shi, H. (2015). First observation of the emission from 5D_J (J= 1, 2, 3) energy levels of Eu³⁺ in Bi₄O₃(BO₃)(PO₄): Eu³⁺ phosphor. *Materials Letters*, 158, 208-210.

DIGITAL SKILLS

Statistical and predictive modelling / Analyze Data Using SPSS / Origin Pro: proficient at scientific data processing / Software statistico per excel (XLSTAT) / Adobe Photoshop (basic elements) / Excellent knowledge of ImageJ / GraphPad (Intermediate) / Design Expert (design of experiments)

12/10/2024

Xinying Suo