



Xiaohui Huang

WORK EXPERIENCE

[10/05/2021 – 30/06/2022] **Fellowship holder of the project “ Assessment of postbiotics produced by lactic acid bacteria as novel biopreservatives for extending chicken meat shelf-life”**

University of Camerino

City: Camerino

Country: Italy

Main activities and responsibilities:

- Investigation the bioactivities of lactic acid bacterial metabolites, in the form of cell-free supernatant.
- Selection and validation of the protective roles of LAB metabolites on raw chicken meat quality, such as microbial, chemical, textural and organoleptic parameters.

EDUCATION AND TRAINING

[12/10/2017 – 01/10/2021] **Ph.D. degree in "MOLECULAR BIOLOGY AND CELLULAR BIOTECHNOLOGY" With 3-year scholarship – International School of Advanced Studies**

University of Camerino <https://scienzaelode.unicam.it/gruppo-di-ricerca-del-progetto-“grafood”>

Address: 62032, Camerino, Italy

Field(s) of study: Health and welfare

Thesis: Active graphene-based food packaging systems for a modern society: the GRAFOOD project

<https://isas.unicam.it/>

Main subject / occupational skills covered:

- Design and validate the methods for testing the currently available packaging materials for food products.
- Investigate interactions between several probiotic strains with different graphene composites.
- Design and validate a new type of packaging materials that incorporated both probiotics and graphene for conserving fresh cheese (ricotta cheese) and chicken breast meat. Their effects on food shelf-life.

[10/05/2017 – 30/07/2017] **Certificate of Erasmus plus**

Wageningen university

Address: Wageningen, Netherlands

Main subject / occupational skills covered:

- experiences of growing and maintaining in vitro organoid cells and IPEC-J2 cells.
- experiments setup.

- relevant literature research.
- gained confidence and

[01/10/2015 – 02/02/2017] **Master degree in Biological sciences, Curriculum in Nutrition and Functional food**

University of Camerino

Address: Camerino, Italy

Main subject / occupational skills covered:

Applied Nutrition ,Genomics,Funtional food,Endocrinology and Metabolism,Blood parameter,Advanced food pathology.
Special interest in probiotics.

[15/10/2011 – 20/12/2015] **Bachelor degree in Biosciences and Biotechnology**

University of Camerino

Address: 62032, Camerino, Italy

ACADEMIC ACTIVITIES

[2018 – Current]

Member of exam committee (School of Biosciences and Veterinary Medicine)

Member of exam commission as Subject Expert on “General and Industrial Microbiology” and “Functional Food”

[2018 – Current]

Tutor of bachelor and master students (School of Biosciences and Veterinary Medicine)

Main activities: training and guiding students with research activities and final reports in general and industrial microbiology.

[2020 – 2021] **Collaboration to laboratory lessons and lectures (teaching assistant)**

School of Biosciences and Veterinary Medicine

-Biofilm description: structure and functions (lecture within the General and Industrial Microbiology course)

-Fermented food (lecture within the General and Industrial Microbiology course)

COURSE ATTENDANCE

[23/05/2019 – 24/05/2019] **Food shelf life: Challenges, Pitfalls and Packaging Innovation**

University of Udine - Scientific Pole Rizzi

<https://www.cism.it/en/activities/courses/E1905/>

WORKING EXPERIENCE

[20/02/2015 – 01/12/2015] **Tutor – International Cooperation Office (University of Camerino)**

-Help new students to organize their studies and apply for scholarships.

-Arranging and sorting documents.

-Communication between students and secretary.

PUBLICATIONS

[2022]

Influence of modified governing liquid on shelf-life parameters of high-moisture mozzarella cheese

Reference: Accepted

Huang X., Kamgang Nzekoue F., Renzi S., Pucciarelli, S., Alesi, A., Sagratini G., Silvi S. *Influence of modified governing liquid on shelf-life parameters of high-moisture mozzarella cheese. Int. Food Res. J.*

[2022]

Natural antimicrobial bioactive compounds as novel solutions for counteracting spoilage and pathogen microbes in cheese

Reference: Under submission

Huang X., Sagratini G., Silvi S. Natural antimicrobial bioactive compounds as novel solutions for counteracting spoilage and pathogen microbes in cheese.

[2022]

The influence of the paper modifying agent on the microbiological, biochemical and physical-chemical characteristics of the chicken breast meat during storage

Reference: Under submission

Peter A., Mihaly Cozmuta L., Nicula C., Mihaly Cozmuta A., Apjok R., Talasman CM., Drazic G., Peñas A., Calahorro AJ., Kamgang Nzekoue F., **Huang X.**, Sagratini, G., Silvi S. The influence of the paper modifying agent on the microbiological, biochemical and physical-chemical characteristics of the chicken breast meat during storage. *Br. Poult. Sci.*

[2022]

Paper materials with functionalized surface. Part 3. Analysis of the environmental impact using the life cycle assessment (LCA)

Reference: Under submission

Peter A., Mihaly Cozmuta L., Nicula C., Mihaly Cozmuta A., Apjok R., Talasman CM., Drazic G., Peñas A., Calahorro AJ., Kamgang Nzekoue F., **Huang X.**, Sagratini, G., Silvi S. Paper materials with functionalized surface. Part 3. Analysis of the environmental impact using the life cycle assessment (LCA), *Cellul. Chem. Technol.*

[2022]

Determination of ATP-related compounds as quality markers by HPLC to study the effect of cell-free supernatants of *Lactiplantibacillus plantarum* on the preservation of sliced dry-cured ham

Reference: Under submission

Tao, J., Yu, B., Shen, Q., Zhou, X., Chen, S., **Huang, X.**, Sagratini, G., Vittori, S., Caprioli, G., Zhang, H., Bai, Y. Determination of ATP-related compounds as quality markers by HPLC to study the effect of cell-free supernatants of *Lactiplantibacillus plantarum* on the preservation of sliced dry-cured ham. *Int. Food Res. J.*

[2022]

Immobilization of Lactic acid bacteria for production of extracellular polysaccharides

<https://doi.org/10.1590/fst.99021>

Tao, J., **Huang, X.**, Ling, F., Yu, B., Zhou, X., Shen, Q., Sagratini, G. Immobilization of Lactic acid bacteria for production of extracellular polysaccharides. *Food Sci. Technol.* 2

Barrier properties, migration into the food simulants and antimicrobial activity of paper-based materials with functionalized surface

<https://doi.org/10.1177/0673911221106347>.

Reference: 2022

Peter A., Mihaly Cozmuta L., Nicula C., Mihaly Cozmuta A., Apjok R., Talasman CM., Drazic G., Peñas A., Calahorro AJ., Kamgang Nzekoue F., **Huang X.**, Sagratini, G., Silvi S. Barrier properties, migration into the food simulants and antimicrobial activity of paper-based materials with functionalized surface. *Polym. Polym. Compos.*

[2021]

A shelf-life study for the evaluation of a new biopackaging to preserve the quality of organic chicken meat.

<https://doi.org/10.1016/j.foodchem.2021.131134>

Alessandroni, L., Caprioli, G., Faiella, F., Fiorini, D., Galli, R., **Huang, X.**, Marinelli, G., Nzekoue, F., Ricciutelli, M., Scortichini, S., Silvi, S., Tao, J., Tramontano, A., Turati, D., Sagratini, G. A shelf-life study for the evaluation of a new biopackaging to preserve the quality of organic chicken meat. *Food Chem.*, 371(5), 131134.

[2021]

Morpho-structural and chemical characterization of paper based materials with functionalized surface

<https://doi.org/10.1016/j.matchemphys.2021.124693>

Peter A., Mihaly Cozmuta L., Nicula C., Mihaly Cozmuta A., Apjok R., Talasman C.M., Drazic G., Peñas A., Calahorro A.J., Kamgang Nzekoue F., **Huang X.**, Sagratini G., Silvi S. Morpho-structural and chemical characterization of paper based materials with functionalized surface. *Mater. Chem. Phys.* 267, 124693.

[2020]

Lactobacillus Strains Treatment on Commercial Packaging Paper as Preliminary Study for Extending the Shelf-Life of Chicken Meat.

<https://www.heraldopenaccess.us/openaccess/lactobacillus-strains-treatment-on-commercial-packaging-paper-as-preliminary-study-for-extending-the-shelf-life-of-chicken-meat>

Huang X., Kamgang Nzekoue F., Coman M. M., Peter A., Talasman C. M., Drazic G., Peñas A., Verdenelli M. C., Sagratini G., Silvi S. *Lactobacillus* Strains Treatment on Commercial Packaging Paper as Preliminary Study for Extending the Shelf-Life of Chicken Meat. *J. Biotech Res Biochem.* 3;007.

[2019]

Impact of packaging properties on the physical-chemical-microbiological-sensory characteristics of Ricotta cheese during storage.

<https://doi.org/10.1002/pts.2482>

Mihaly Cozmuta A., Peter A., Mihaly Cozmuta L., Nicula C., Apjok R., Drazic G., Kamgang Nzekoue F., **Huang X.**, Silvi S., Sagratini G., Peñas A., Calahorro A.J, Cano-Galey M., Hodek O. (2019). Impact of packaging properties on the physical- chemical-microbiological-sensory characteristics of Ricotta cheese during storage. *Packag Technol Sci.* 1-11.

POSTERS

[11/09/2021 – 13/09/2021]

Characterization of cell-free supernatants of lactic acid bacteria from different microenvironments

Huang X., Coman MM., Fiorini, D., Rossi, G., Silvi, S. Characterization of cell-free supernatants of lactic acid bacteria from different microenvironments. Poster at 11th PROBIOTICS, PREBIOTICS & NEW FOODS, NUTRACEUTICALS AND BOTANICALS FOR NUTRITION & HUMAN AND MICROBIOTA HEALTH, Università urbaniana, Roma, Italy.

[10/11/2020 – 10/11/2020]

Potential Effects of Commercial Kefir Milk Consumption on Gut Microbiota in Cancer Patients

Salvesi C., **Huang X.**, Fanizzi, M., Scipioni, T., Silvi, S. Potential Effects of Commercial Kefir Milk Consumption on Gut Microbiota in Cancer Patients. Poster at IPC 2020-14th International scientific conference. PROBIOTICS, PREBIOTICS GUT MICROBIOTA AND HEALTH, Virtual conference

[07/09/2019 – 09/09/2019]

Antimicrobial activity of cell-free supernatant of *Lactobacillus plantarum* IMC 509 against common food spoilage microbes

Huang X., Kamgang Nzekoue F., Coman MM., Peter A., Talasman CM., Drazic G., Peñas A., Verdenelli MC., Sagratini G., Silvi S. Antimicrobial activity of cell-free supernatant of *Lactobacillus plantarum* IMC 509 against common food spoilage microbes. Poster at 10th PROBIOTICS, PREBIOTICS & NEW FOODS, NUTRACEUTICALS AND BOTANICALS FOR NUTRITION & HUMAN AND MICROBIOTA HEALTH, Università urbaniana, Roma, Italy.

[08/07/2019 – 08/07/2019]

Characterization of probiotics as active agent in PLA packaging for counteracting spoilage in ricotta cheese

Huang X., Kamgang Nzekoue F., Coman MM., Peter A., Talasman CM., Drazic G., Peñas A., Verdenelli MC., Sagratini G., Silvi S. Characterization of probiotics as active agent in PLA packaging for counteracting spoilage in ricotta cheese. Poster at CIBO E NUTRACEUTICI: PAROLA CHIAVE "CARATTERIZZAZIONE". 4° Convegno a cura delle Piattaforme Tematiche di Ateneo, Camerino, Italy

[16/06/2019 – 19/06/2019]

Probiotics as active agents in paper based wrapping system for increasing the shelf-life of raw meat

Huang X., Kamgang Nzekoue F., Coman MM., Peter A., Talasman CM., Drazic G., Peñas A., Verdenelli MC., Sagratini G., Silvi S. Probiotics as active agents in paper based wrapping system for increasing the shelf-life of raw meat. Poster at IPC 2019 - International scientific conference. PROBIOTICS, PREBIOTICS GUT MICROBIOTA AND HEALTH, Prague, Czech Republic.

[23/09/2018 – 26/09/2018]

Active graphene based food packaging systems for a modern society (GRAFOOD)

Kamgang Nzekoue F., Caprioli G., **Huang X.**, Silvi S., Sagratini G. Activegraphene based food packaging systems for a modern society (GRAFOOD). Poster at CHIMALI - XII ITALIAN FOOD CHEMISTRY CONGRESS. Camerino, Italy.

[09/07/2018 – 09/07/2018]

Sensory and microbiological assessment of foods stored in packaging from different European countries

Huang X., Sagratini G., Silvi S. Sensory and microbiological assessment of foods stored in packaging from different European countries. Poster at CIBO E NUTRACEUTICI: DIREZIONE SALUTE. 3° Convegno a cura delle Piattaforme Tematiche di Ateneo. Camerino, Italy.

PATENTS

[11/06/2020 – 11/06/2020] **Patent Application OSIM**

Patent Application OSIM (reg. A/00328 of 12.06.2020): Peter A., Mihaly Cozmuta A, Mihaly Cozmuta L, Nicula C, Talasman C, Caprita F, Constantin C, Dumitrascu I, Drazic G, Bele M, Chernyshova E., Silvi S, Sagratini G, **Huang X.**, Kamgang F, Verdenelli C, Orpianesi C, Coman M, Penas A, Calahorro A, Cano Galey M, Ramirez Rodriguez M. PROCEDEU DE OBȚINERE A UNOR AMBALAJE ACTIVE PE BAZĂ DE ACID POLILACTIC MODIFICAT CU NANOCOMPOZIT.

[24/06/2020 – 24/06/2020] **Patent Application EPO**

Patent Application EPO (EP20020299.2 of 25/06/2020): Peter A., Mihaly Cozmuta A, Mihaly Cozmuta L, Nicula C, Talasman C, Caprita F, Constantin C, Dumitrascu I, Drazic G, Bele M, Chernyshova E., Silvi S, Sagratini G, **Huang X.**, Kamgang F, Verdenelli C, Orpianesi C, Coman M, Penas A, Calahorro A, Cano Galey M, Ramirez Rodriguez M. PROCESS FOR OBTAINING ACTIVE PACKAGES BASED ON POLYLACTIC ACID MODIFIED WITH NANO-COMPOSITE.

CONFERENCES AND SEMINARS

[11/09/2021 – 13/09/2021]

11TH PROBIOTICS, PREBIOTICS & NEW FOODS, NUTRACEUTICALS AND BOTANICALS FOR NUTRITION & HUMAN AND MICROBIOTA HEALTH

UNIVERSITÀ URBANIANA, Roma, Italy

Poster presentation

[12/07/2021 – 12/07/2021]

5° Convegno a cura delle Piattaforme Tematiche di Ateneo su "Alimenti e Nutrizione" e "Sanità Umana e Animale"

Virtual conference

Participation

[10/11/2020 – 10/11/2020]

IPC 2020-14th International scientific conference. PROBIOTICS, PREBIOTICS GUT MICROBIOTA AND HEALTH

Virtual conference

Poster presentation

[07/09/2019 – 09/09/2019]

10TH PROBIOTICS, PREBIOTICS & NEW FOODS, NUTRACEUTICALS AND BOTANICALS FOR NUTRITION & HUMAN AND MICROBIOTA HEALTH

UNIVERSITÀ URBANIANA, Roma, Italy

Poster presentation

[08/07/2019 – 08/07/2019]

Cibo e nutraceutici: parola chiave “CARATTERIZZAZIONE”. 4° Convegno a cura delle Piattaforme Tematiche di Ateneo

Camerino, Italy

Poster presentation

[16/06/2019 – 19/06/2019]

IPC 2019 -International scientific conference. PROBIOTICS, PREBIOTICS GUT MICROBIOTA AND HEALTH

Prague, Czech Republic

Poster presentation

[09/07/2018 – 09/07/2018]

Cibo e nutraceutici: direzione salute. 3° Convegno a cura delle Piattaforme Tematiche di Ateneo

Camerino, Italy

Poster presentation

PARTICIPATION TO PROJECTS

[10/2021 – Current]

2021: Ministero dello Sviluppo Economico (MISE) (decreto 09.12.2014) in collaboration with Sabelli industry. Project "Development of new functional dairy products" Coordinator: Prof. Sagratini;

- Preparation of different governing liquids with the addition of lactic acid bacteria or salt mixture.
- Analysis of mozzarella cheese microbial, physiochemical, and sensorial parameters during shelf-life.
- Organizing results and writing manuscripts.

[2020 – Current]

Research project, finance by Marche region, PSR Marche 2014– 2020 Submeasure 16.1, phase 2. “ABRIOPACK: the bio-packaging for poultry products as a model of circular economy with low environmental impact” - ID: 29057

Sub Task: “Monitor and compare the microbiological parameter of fresh poultry meat under the storage of conventional or novel packaging”.

Coordinator: SOCIETA' COOPERATIVA AGRICOLA CARNJ, Jesi, AN.

[2016 – 2020]

Active GRaphene based FOOD packaging systems for a modern society – M-ERA.NET 2 – Call 2016

- Probiotic bacteria in food preservation potentials Probiotic metabolites activities assessment
- Assessment of food shelf-life parameters in different food package
- Develop and assess the active packaging containing live probiotic bacteria on food quality and safety

ANALYSIS ACTIVITY

Valutazione della carica microbica e di contaminanti microbici in prodotti integratori sublinguali con il proprio marchio

SAN LUIGI GONZAGA Srl. (AP)

Shelf-life study of foods (ham/cheese) with different packaging materials

ESSEOQUATTRO SpA, Carmignano di Brenta (PD)

Evaluation of the antibacterial and antifungal efficiency of a hand hygiene product: Silver Blu "GEL"

BIOGROUP Srl, Bagnoli del Trigno (IS)

Evaluation of the antimicrobial ability of a bed sterilization device

"Steriletto™" of the company Health 3, San Benedetto del Tronto (AP)

LANGUAGE SKILLS

Mother tongue(s): Chinese

Other language(s):

Italian

LISTENING B2 READING B2 WRITING B1

SPOKEN PRODUCTION B1 SPOKEN INTERACTION B1

English

LISTENING C1 READING C1 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

DIGITAL SKILLS

My Digital Skills

Microsoft Word | Microsoft Excel | Microsoft Powerpoint | Microsoft Office | Google Drive | Statistical analysis of data (R, SPSS, Minitab, Python, Xlstat, Excel, Sphinx) | Programmi di Microbiologia Predittiva: Combase, FSSP, Ginafit, PMP, DMfit) | BioRender: Creating Professional Science Figures | Basic Knowledge in MATLAB and Octave | R Language and R Studio

MANAGEMENT AND LEADERSHIP SKILLS

Tutor of bachelor students

1. Microbiological and sensory analysis of Italian "ricotta" cheese stored in packaging from different European countries. Final Report of Bachelor's degree in BIOSCIENCES and BIOTECHNOLOGY, Curriculum: Biotechnology. Candidate: Siyao Lu. University tutor: Prof. S. Silvi; Placement tutor: Dr. **X. Huang**. Academic Year: 2017-2018.
2. Study of graphene oxide-based composites and probiotic bacterial strains interaction. Final Report of Laboratory Experience within the BIOSCIENCES and BIOTECHNOLOGY Course, Curriculum: Biotechnology. Candidate: Xiayu Shen. Tutors: Prof. S. Silvi and Dr. **X. Huang**. Academic Year: 2018- 2019.
3. Probiotic strains as active components for PLA packaging. Final Report of Laboratory Experience within the BIOSCIENCES and BIOTECHNOLOGY Course, Curriculum: Biotechnology. Candidate: Xiang Li. Tutors: Prof. S. Silvi and Dr. **X. Huang**. Academic Year: 2018-2019.
4. Assessment of probiotic bacteria viability in the presence of graphene-based composites. Final Report of Laboratory Experience within the BIOSCIENCES and BIOTECHNOLOGY Course, Curriculum: Biotechnology. Candidate: Siyao Xiao. Tutors: Prof. S. Silvi and Dr. **X. Huang**. Academic Year: 2018-2019.
5. Microbiological assessment of ham stored in several paper packaging systems. Final report of Laboratory Experience within the BIOSCIENCES and BIOTECHNOLOGY Course, Curriculum: Biotechnology. Candidate: Polina Makarycheva. Tutors: Prof. S. Silvi and Dr. **X. Huang**. Academic Year: 2018-2019.
6. Evaluation of the bacterial activity of a hygiene product. Final report of Laboratory Experience within the BIOSCIENCES and BIOTECHNOLOGY Course, Curriculum: Biotechnology. Candidate: Umani S. Galbada Liyanage. Tutors: Prof. S. Silvi and Dr. **X. Huang**. Academic Year: 2020-2021.
7. Activity assessment of cell-free supernatant of *Lactobacillus* strains against foodborne pathogens Final report of Laboratory Experience within the BIOSCIENCES and BIOTECHNOLOGY Course, Curriculum: Biotechnology. Candidate: Chenxin Zhang. Tutors: Prof. S. Silvi and Dr. **X. Huang**. Academic Year: 2020-2021.