Assistant Professor Nattida CHOTECHUANG, Ph.D.

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PROFESSIONAL PROFILE

University and research:

- 2018-present **Assistant Professor,** at Department of Food Technology, Faculty of Science, Chulalongkorn University.
- 2010-2018 **Lecturer/Researcher,** at Department of Food Technology, Faculty of Science, Chulalongkorn University.
- 2005-2010 **PhD student,** at AgroParisTech, INRA, Paris, France.

Technology Transfer: Academia to Industry:

- 2022-present **CTO at Prove Innomed. Co.Ltd**., a spin-off health tech company from Chulalongkorn University.
- 2021-present **COO at Trida&Co. Co., Ltd.**, a spin-off med tech company from Chulalongkorn University.

EDUCATION

- 2010: **Ph.D. in Nutrition**, (Mention Trés Honorable) Department of Nutrition Physiology and Ingestive Behavior, AgroParisTech, INRA, Paris, France.
  Supervisor: **Professor Daniel TOME and Professor Dalila AZZOUT-MARNICHE**
  Dissertation Title: **The role of amino acids in liver metabolism under a high protein diet: Identification of amino acids signal and associated transduction pathways**.
- 2004**:** **M.Sc. in Biochemistry**, Chulalongkorn University, Bangkok, Thailand.
- 2002: **B.S. in Biochemistry**, Chulalongkorn University, Bangkok, Thailand.

INTERNATIONAL EXPERIENCE AND FELLOWSHIPS

- 2021-2023 **SPAIN**: Visiting researcher at CIC biomaGUNE (Donostia, Spain):
  Horizon 2020 Marie Skłodowska-Curie Actions (MSCA)
  Research and Innovation Staff Exchange (RISE) (project OXIGENATED)
- 2015 **GERMANY**: Summer School «Human Olfaction», The University of Dresden Medical School
- 2010 **JAPAN:** Industrials Postdoctoral Fellowship at Ajinomoto, Co.,Inc.
- 2006 **HUNGARY**: Socrates-ERASMUS program. « Food and Consumer » Intensive Program.
- 2005-2010 **FRANCE:** Doctoral Fellowship by Royal Thai Government at AgroParistech.

RESEARCH LEADERSHIP

- 2021-Present: **Reseach group :** The Development of Food and Food Additive from Innovative Microbial Fermentation, Chulalongkorn University.
- 2018-2021: **Project as co-Principal Investigator**: Clinical efficacy of HydroZitLa in reducing risk factors of urinary stone disease supported by Thailand Science Research and Innovation.
- 2017: **Project as co-Principal Investigator**: Innovative dietary supplement for preventing urinary stone supported by a Research Gap Fund, National Science and Technology Development Agency.
- 2016-2017: **Project as Principal Investigator**: Development of Thai version of Odor Identification Test supported by a research grant, National Research Council of Thailand.
- 2012-2014: **Project as Principal Investigator**: Determination of Taste Active components in Thai soup stocks supported by a research grant, Ajinomoto, Co., Inc., Japan.
- 2011-2012: **Project as Principal Investigator**: Benefit of Umami Taste on Saliva Secretion in Thai Elderly supported by a research grant for Early Career Faculties, Chulalongkorn University.

PUBLICATIONS

- **Chotechuang N** , Di Gianvincenzo P , Chen CG, Nardi AN, Padró D, Boonla C, Ortore MG, D' Abramo M, Moya SE. A study of cyanidin/alginate complexation: Influence of pH in assembly and chiral properties. Carbohydr Polym. 2023 Sep; Epub 2023 Apr 28.
- Nayem MF, Buranasajja A, Boonsuksom H, Suknuntee N, Kongjui A, Boonla C, **Chotechuang N**. Lactic acid bacteria profiles associated to Thai traditional fermented foods. Food Agric Sci Technol. 2023; 9: 35-52.
- Chetria V, Buranavanitvong N, Settachaimongkon S, **Chotechuang N**, Prakitchaiwattana C. Potential application of immobilized Bacillus subtilis (P5-6) as bio-protective culture against Staphylococcus aureus in acidic and salted food model. Food Agric Sci Technol. 2023; 9: 66-75.
- Sricharoen W, **Chotechuang N**, Prakitchaiwattana C. Pigments from halophilic bacteria isolated from salty fermented foods for further development as bio/natural-food additives. Food Agric Sci Technol. 2022; 8: 1-14.
- Lordumrongkiat N, **Chotechuang N**, Prasanth MI, Jindatip D, Ma-On C, Chuenwisad K, Leelahavanichkul A, Tencomnao T, Boonla C. HydroZitLa inhibits calcium oxalate stone formation in nephrolithic rats and promotes longevity in nematode Caenorhabditis elegans. Sci Rep. 2022; 12: 5102.
- Jagota P, **Chotechuang N**, Anan C, Kitjawijit T, Boonla C, Bhidayasiri R. Umami and Other Taste Perceptions in Patients With Parkinson's Disease. J Mov Disord. 2022; 15:115-123.
- Trachootham D, Thongyen S, Lam-Ubol A, **Chotechuang N**, Pongpirul W, Prasithsirikul W. Simultaneously complete but not partial taste and smell losses were associated with SARS-CoV-2 infection. Int J Infect Dis. 2022; 106: 329-337.
- Chuenwisad K, More-Krong P, Tubsaeng P, **Chotechuang N**, Srisa-Art M, Storer RJ, Boonla C. Premature Senescence and Telomere Shortening Induced by Oxidative Stress From Oxalate, Calcium Oxalate Monohydrate, and Urine From Patients With Calcium Oxalate Nephrolithiasis.
  Front Immunol. 2021; 12: 696486.
- Lordumrongkiat, N., **Chotechuang, N.,** Madared, N., Jundatip, D., Boonla, C. Total phenolics, totalflavonoid and total antioxidant capacity of medicinal plant-derived beverage: HydroZitLa. Chula med J. 2019; 64: 381-388.
- **Chotechuang, N.,** Lokkumlue, M. and Deetae, P. Effect of temperature and time on free amino acid profile in Thai chicken bone soup stock preparation.TJPS. 2018; 42: 110-117.
- Trachootham D, Sato-Kuriwada S, Lam-Ubol A, Promkam C, **Chotechuang N**, Sasano T, Shoji N. Differences in Taste Perception and Spicy Preference: a Thai - Japanese Cross-cultural Study. Chem Senses. 2018; 43:65-74.
- Madiloggovit, J., **Chotechuang, N**., and Trachootham, D. Impact of self-tongue brushing on taste perception in Thai older adults: A pilot study. Geriatric Nursing. 2016; 37: 128-136.
- Matsumoto T., Nakamura E., Nakamura H., Hirota M., Gabriel AS., Nakamura KI., **Chotechuang N.**,
  Wu G., Uneyama H. and Torii K., The production of free glutamate in milk requires the leucine transporter LAT1. Am J Physiol Cell Physiol. 2013; 305: C623-C631.
- **Chotechuang N.**Taste Active Components in Thai Foods: A Review of Thai Traditional Seasonings. J Nutr Food Sci. 2012; S10:004.
- **Chotechuang N.,** Azzout-Marniche D., Bos C., Chaumontet C., Gaudichon* C., and Tomé D., Down-regulation of the proteasome proteolysis system in response to amino acids and insulin involved the AMPK and mTOR pathways in rat liver hepatocytes. Amino Acids. 2011; 41: 457-468.
- **Chotechuang N.,** Azzout-Marniche D., Bos C., Chaumontet C., Gausserès N., Steiler T., Gaudichon* C., and Tomé D., mTOR, AMPK and GCN2 coordinate the adaptation of hepatic energy metabolic pathways in response to protein intake in the rat. Am J Physiol Endocrinol Metab 2009; 297:
  E1313-E1323.

SELECTED COMMUNICATIONS

- **Understanding umami perception which affects appetite and diet among Parkinson's diseases older adult patients.**
  The 8th Asian Congress of Dietatics, 19-21 August 2022, Yokohama, Japan. (Speaker).

- **Taste active compounds of Asian food.**
  XI Asian Congress of Nutrition, 13-16 July 2011, Singapore. (Speaker).

- **Physiology of the 5th basic taste.**
  7th Asia Pacific Conference on Clinical Nutrition, 5-8 June 2011, Bangkok, Thailand. (Speaker).

- **Amino acid signaling involved in metabolic regulation and Umami taste.** The 1st Asian's advanced international Food Conference: Ingredients in Food and Beverage Innovation and Trend Update, 3-5 March 2011, Bangkok, Thailand. (Speaker).

- **The down-regulation of the proteasome proteolysis system in response to amino acids and insulin involved the AMPK and mTOR pathways in rat liver hepatocytes.**
  Experimental Biology Annual Meeting, 24-28 April, 2010 California, USA. (Oral Communication).

- **mTOR, AMPK and GCN2 coordinate the adaptation of hepatic energy metabolic pathways in response to amino acids and insulin.**
  FASEB J., 2009; 23, 228.2, Experimental Biology Annual Meeting, 18 – 22 April, 2009 New Orleans, USA. (Oral Communication).

- **Both stimulation of mTOR and inhibition of GCN2 and AMPK are involved in the stimulation of protein translation in response to high protein diet**. Ann Nutr Metab 2007; 51:62, 10th European Nutrition Conference, July 2007, Paris, France. (Oral Communication).

PRODUCTIVITY AND PUBLICATION METRICS

- **12 International Publications**
- **1 PCT patent and 1 Thai Patent**
- **h-Index : 7 (Scopus)**
- **Citations : 196 (Scopus)**

LANGUAGE SKILLS

ENGLISH: Professional

FRENCE: Level B1

SPANISH: Level A1

THAI: Native