Department of Applied Biological Chemistry

Laboratory of Functional Food Science and Technology

STAFF	Professor Seiichi HAGA	Associate Professor Toshiya HAYASHI
TEACHING	Food Science & Technology I & II Food Preservation Advanced Food Science and Technology (MC)	Food Functionality Food Palatability II Food Resources II Advanced Functional Food Science (MC)

Professor Seiichi HAGA

Associate Professor Toshiya HAYASHI

Research

Research on food processing technology and functional improvement of animal products

Sources of Animal Protein (Meat, Milk and Eggs)→

Traditional and Advanced Food-Processing Technology

- Fermentation
- Retort Processing
- Food Freezing

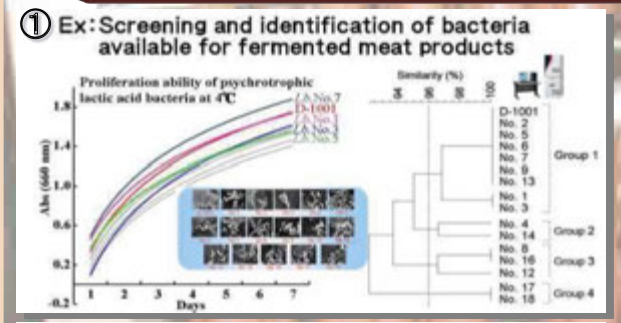
Our research subjects:

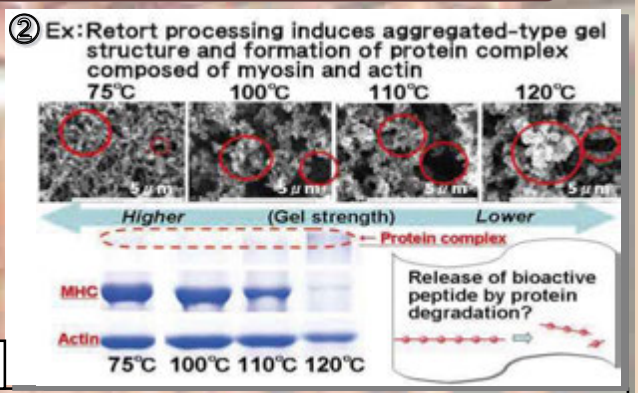
①Practical application of mass spectral identification of food-related bacteria

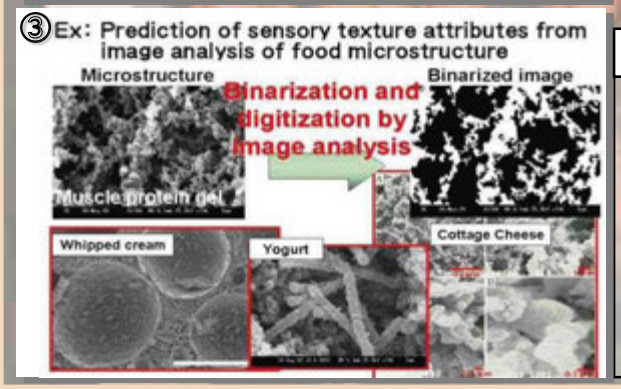
②Improvement of palatability and food functionality of animal products by food processing techniques

③Establishment of objective criteria for the texture evaluation based on food structure

Development of High Value-Added Animal Products







Lab life

Recent publications:

- Hayashi, T., Washio, S., Arakawa, M., Taguchi, M., Toyoda, N. and Haga, S. (2011) Evaluation of the functional properties in pork meat fermented by psychrotrophic bacteria, *Int. Cong. Meat Sci. Technol.*, 57, P395: 1-4.
- Aota, K., Ichinoseki, S., Numata, M., Kosai, K., Miyaguchi, Y., Hayashi, T. and Haga, S. (2011) A new processing method to reduce sodium in sausages without potassium chloride and phosphates, *Int. Cong. Meat Sci. Technol.*, 57, P375: 1-4.
- Hayashi, T., Toyoda, N., Arakawa, M. and Haga, S. (2010) Retort processing may induce protein degradation and improve food functionalities of meat products. *Int. Cong. Meat Sci. Technol.*, 56, E60: 1-4.
- Haga, S., Hayashi, T., Ohba, M. and Sakata, R. (2009) Muscle protein degradation in pork meat fermented by psychrotrophic lactic acid bacteria, *J. Res. Inst. Meijo Univ.*, 8: 91-96 (in Japanese).
- Hayashi, T., Hattori, A., Kato, K., Fujino, T. and Haga, S. (2009) Comparison of whey protein and water-soluble vitamin contents in the direct and indirect UHT-processed milk –Effect of pre-heating on the residual whey protein and water-soluble vitamin contents in UHT milk–, *Anim. Sci. J.*, 80: 41-45 (in Japanese).
- Haga, S., Hayashi, T., Ogawa, Y., Taguchi, M., Arakawa, M., Sakata, R. and Nishikawa, J. (2008) Practical training education for acquiring the safety and security of the food, *Bull. Res. Inst. Meijo Univ.*, 13: 5-8 (in Japanese).
- Hayashi, T., Kato, K. and Haga, S. (2008) Angiotensin I-converting enzyme inhibitory peptide derived from porcine skeletal muscle myosin fermented by *Lactobacillus lactis* subsp.*lactis* IFO-12007, *J. Res. Inst. Meijo Univ.*, 7: 71-80.
- Teramoto, K., Sato, H., Sun, L., Torimura, M., Tao, H., Waguri, S., Hayashi, T. and Haga, S. (2007) Rapid identification and classification of psychrotrophic lactic acid bacteria by matrix-assisted laser desorption/ionization mass spectrometry, *Bunseki Kagaku*, 56: 1063-1070 (in Japanese).