

CURRICULUM VITAE

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Shigenori KUMAZAWA, Ph.D.

-Position: Professor

-Laboratory: Laboratory of Food Analytical Chemistry

-University: Department of Food Science and Biotechnology
University of Shizuoka
52-1 Yada, Suruga-ku, Shizuoka, 422-8526, Japan
Tel: +81-54-264-5523
Fax: +81-54-264-5523
E-mail: kumazawa (at) u-shizuoka-ken.ac.jp

Fields of Research Interest

- Food Analytical Chemistry
- Food Functional Science
- Natural Products Chemistry

Education

- Ph.D.** Agriculture, Nagoya University, 1995
- M.A.** Agricultural Chemistry, Nagoya University, 1988
- B.S.** Agricultural Chemistry, Nagoya University, 1986

Experience

- University of Shizuoka, Professor, 2010-
- University of Shizuoka, Associate Professor, 2004-2010
- University of Shizuoka, Research Assistant Professor, 1997-2003
- Research Scientist at Mitsubishi Chemical Cooperation, 1988-1997

Publications

Original papers (2010-)

1. Toshiro Ohta, Eriko Ishizu-Nagashima, Sayaka Mizuno, Ryo Miyata, Boonyadist Vongsak, Shigenori Kumazawa: Anti-angiogenic activity of mangostins isolated from Thailand stingless bee propolis. *Nat. Prod. Commun.*, **2023**, 18, 1-7.
2. Sayaka Mizuno, Ryo Miyata, Agus Sukito, Muhamad Sahlan, Shigenori Kumazawa: A new chromanone derivative from *Calophyllum inophyllum* resin and its antibacterial activity. *Rec. Nat. Prod.*, **2023**, 17, 1085-1089.
3. Wataru Kadowaki, Ryo Miyata, Sayaka Mizuno, Misa Fujinami, Yoshizumi Sato, Shigenori Kumazawa: Prenylated acetophenones from the roots of *Calendula officinalis* and their anti-inflammatory activity. *Biosci. Biotechnol. Biochem.*, **2023**, 87, 683-687.
4. Sayaka Mizuno, Ryo Miyata, Muhamad Sahlan, Shigenori Kumazawa: Improvement of water solubility and antibacterial activity of *Calophyllum inophyllum* resin and calophylloic acid A via inclusion complexation with cyclodextrins. *Food Sci. Technol. Res.*, **2023**, 29, 301-307.
5. Aoi Yanagihara, Ryo Miyata, Taichi Mitsui, Hajime Sato, Shigenori Kumazawa: Two new hydroxycinnamoyl acid amides isolated from Australian bee pollen using molecular networking analysis. *Phytochem. Lett.*, **2023**, 54, 91-96.
6. Wataru Kadowaki, Ryo Miyata, Misa Fujinami, Yoshizumi Sato, Shigenori Kumazawa: Catechol-*O*-methyltransferase Inhibitors from *Calendula officinalis* Leaf. *Molecules*, **2023**, 28, 1333.
7. Chie Watanabe, Ryo Miyata, Sachio Wakayama, Shigenori Kumazawa: New acylated flavonoid isolated from Thai bee pollen using molecular networking analysis and determination of its catechol-*O*-methyltransferase inhibitory activity. *Phytochem. Lett.*, **2023**, 53, 239-244.
8. Wataru Kadowaki, Yuki Sugahara, Tomoyasu Toyoizumi, Teruko Nakajima, Shigenori Kumazawa: Isolation and identification of antioxidant phenylpropanoids from the fruit peel of *Akebia trifoliata* Koidz. *Food Sci. Technol. Res.*, **2023**, 29, 27-34.
9. Ryo Miyata, Hitomi Sano, Sara Hoshino, Shigenori Kumazawa: Thermostability and catechol-*O*-methyltransferase inhibitory activity of acylated anthocyanins from purple yam. *Biosci. Biotechnol. Biochem.*, **2022**, 86, 916-921.
10. Ryo Miyata, Hitomi Sano, Shigenori Kumazawa: New acylated anthocyanin isolated from purple yam using molecular networking analysis. *Food Sci. Technol. Res.*, **2022**, 28, 329-334.
11. Kazuma Mukaide, Yuko Shimamura, Shuichi Masuda, Boonyadist Vongsak, Shigenori Kumazawa: Antibacterial and antibiofilm activities of Thailand propolis against *Escherichia coli*. *Nat. Prod. Commun.*, **2022**, 17, 1-5.

12. Ryo Miyata, Sara Hoshino, Mok-Ryeon Ahn, Shigenori Kumazawa: Chemical profiles of Korean bee pollens and their catechol-O-methyltransferase inhibitory activities. *J. Agric. Food Chem.*, **2022**, 70, 1174-1181.
13. Sayaka Mizuno, Ryo Miyata, Kazuma Mukaide, Sari Honda, Agus Sukito, Muhamad Sahlan, Tohru Taniguchi, Shigenori Kumazawa: New compound from the plant origin of propolis from Lombok, Indonesia and its antibacterial activity. *Results Chem.*, **2022**, 100276.
14. Yuki Sugahara, Toshiro Ohta, Yoshiki Taguchi, Wataru Kadowaki, Sari Honda, Yasuhiro Kashima, Taiji Matsukawa, Shigenori Kumazawa: Resveratrol derivative production by high-pressure treatment: proliferative inhibitory effects on cervical cancer cells. *Food Nutr. Res.*, **2022**, 66, 7638.
15. Ryo Miyata, Tomoharu Motoyama, Shogo Nakano, Sohei Ito, Kazuma Mukaide, Boonyadist Vongsak, Shigenori Kumazawa: Catechol-O-methyltransferase inhibitors isolated from Thai propolis. *Nat. Prod. Commun.*, **2021**, 16, 1-5.
16. Kohsuke Shimomura, Hironari Kako, Hidehiko Yokogoshi, Mok-Ryeon Ahn, Shigenori Kumazawa: Promotion effect of the propolis from Jeju Island, Korea, on NGF secretion in human glioblastoma cells. *J. Nat. Med.*, **2021**, 75, 1030-1036.
17. Kazuma Mukaide, Sari Honda, Boonyadist Vongsak, Shigenori Kumazawa: Prenylflavonoids from propolis collected in Chiang Mai, Thailand. *Phytochem. Lett.*, **2021**, 43, 88-93.
18. Saori Inui, Takahiro Hosoya, Kazuma Yoshizumi, Hajime Sato, Shigenori Kumazawa: Phytochemical and anti-inflammatory properties of Senegalese propolis and isolated compounds. *Fitoterapia*, **2021**, 151, 104861.
19. Naoki Okamura, Toshiro Ohta, Kazuhiro Kunimasa, Yoshihiro Uto, Shigenori Kumazawa: Antiangiogenic activity of flavonols in chorioallantoic membrane (CAM) assay. *Food Sci. Technol. Res.*, **2020**, 26, 891-896.
20. Takuma Kurata, Naoki Misawa, Takahiro Hosoya, Tomoe Yamada-Kato, Isao Okunishi, Shigenori Kumazawa: Isolation and identification of compounds from wasabi (*Wasabia japonica* Matsumura) flowers and investigation of their antioxidant and anti-inflammatory activities. *Food Sci. Technol. Res.*, **2019**, 25, 449-457.
21. Ryo Miyata, Muhamad Sahlan, Yoshinobu Ishikawa, Hiroshi Hashimoto, Sari Honda, Shigenori Kumazawa: Propolis components from stingless bees collected on South Sulawesi, Indonesia, and their xanthine oxidase inhibitory activity. *J. Nat. Prod.*, **2019**, 82, 205-210.
22. Eriko Ishizu, Sari Honda, Boonyadist Vongsak, Shigenori Kumazawa: Identification of plant origin of propolis from Thailand stingless bees by comparative analysis. *Nat. Prod. Commun.*, **2018**, 13, 973-975.
23. Naoki Misawa, Takahiro Hosoya, Shuhei Yoshida, Osamu Sugimoto, Tomoe Yamada-Kato, Shigenori Kumazawa: 5-Hydroxyferulic acid methyl ester isolated from wasabi leaves inhibits 3T3-L1 adipocyte differentiation. *Phyther. Res.*, **2018**, 32,

- 1304-1310.
24. Eriko Ishizu, Sari Honda, Boonyadist Vongsak, Shigenori Kumazawa: Identification of plant origin of propolis from Thailand stingless bees by comparative analysis. *Nat. Prod. Commun.*, **2018**, *13*, 973-975.
 25. Kazuki Yoshimura, Takahiro Hosoya, Misa Fujinami, Toshiro Ohta, Shigenori Kumazawa: Nymphaeol-C, a prenylflavonoid from *Macaranga tanarius*, suppresses the expression of fibroblast growth factor 18. *Phytomedicine*, **2017**, *36*, 238-242.
 26. Koharu Okumura, Hiroo Matsui, Takahiro Hosoya, Shigenori Kumazawa: Effect of harvest time in some in vitro functional properties of hop polyphenols. *Food Chem.*, **2017**, *225*, 69-76.
 27. Koharu Okumura, Takahiro Hosoya, Kai Kawarazaki, Norihiko Izawa, Shigenori Kumazawa: Antioxidant activity of phenolic compounds from fava bean sprouts. *J. Food Sci.*, **2016**, *81*, 1394-1398.
 28. Chiemi Moriya, Takahiro Hosoya, Sayuri Agawa, Yasumasa Sugiyama, Ikuko Kozone, Kazuo Shin-ya, Norihiko Terahara, Shigenori Kumazawa: New acylated anthocyanins from purple yam and their antioxidant activity. *Biosci. Biotechnol. Biochem.*, **2015**, *79*, 1484-1492.
 29. Shuhei Yoshida, Takahiro Hosoya, Saori Inui, Hideki Masuda, Shigenori Kumazawa: Component analysis of wasabi leaves and an evaluation of their anti-inflammatory activity. *Food Sci. Technol. Res.*, **2015**, *21*, 247-253.
 30. Saori Inui, Ai Hatano, Megumi Yoshino, Takahiro Hosoya, Yuko Shimamura, Shuichi Masuda, Mok-Ryeon Ahn, Shigemi Tazawa, Yoko Araki, Shigenori Kumazawa: Identification of the phenolic compounds contributing to antibacterial activity in ethanol extracts of Brazilian red propolis. *Nat. Prod. Res.* **2014**, *28*, 1293-1296.
 31. Masato Nishizawa, Takahiro Hosoya, Takatsugu Hirokawa, Kazuo Shin-ya, Shigenori Kumazawa: NMR spectroscopic characterization of inclusion complexes of theaflavin digallate and cyclodextrins. *Food Sci. Technol. Res.* **2014**, *20*, 663-669.
 32. Makoto Kobayashi, Masato Nishizawa, Nao Inoue, Takahiro Hosoya, Masahito Yoshida, Yuichi Ukawa, Yuko M Sagesaka, Takayuki Doi, Tsutomu Nakayama, Shigenori Kumazawa, Ikuo Ikeda: Epigallocatechin gallate decreases the micellar solubility of cholesterol via specific interaction with phosphatidylcholine. *J. Agric. Food Chem.*, **2014**, *62*, 2881-2890.
 33. Seon-II Park, Toshiro Ohta, Shigenori Kumazawa, Mira Jun, Mok-Ryeon Ahn: Korean propolis suppresses angiogenesis through inhibition of tube formation and endothelial cell proliferation. *Nat. Prod. Commun.* **2014**, *9*, 555-560.
 34. Michiyo Kubota, Takahiro Hosoya, Syuichi Fukumoto, Tsuyoshi Miyagi, Shigenori Kumazawa: Anti-melanogenic compounds in *Rubus croceacanthus*. *J. Berry Res.* **2014**, *4*, 127-135.
 35. Saori Inui, Takahiro Hosoya, Shigenori Kumazawa: Hawaiian propolis: comparative analysis and botanical origin. *Nat. Prod. Commun.* **2014**, *9*, 165-166.

36. Shigenori Kumazawa, Masayo Murase, Noboru Momose, Syuichi Fukumoto: Analysis of antioxidant prenylflavonoids in different parts of *Macaranga tanarius*, the plant origin of Okinawan propolis. *Asian Pac. J. Trop. Med.* **2014**, *7*, 16-20.
37. Shigenori Kumazawa, Satomi Kubota, Haruna Yamamoto, Naoki Okamura, Yasumasa Sugiyama, Hirokazu Kobayashi, Toshiro Ohta, Motoyasu Nakanishi: Antiangiogenic activity of flavonoids from *Melia azedarach*. *Nat. Prod. Commun.* **2013**, *8*, 1719-1720.
38. Ikumi Tsuchiya, Takahiro Hosoya, Motoko Uchida, Kazuhiro Kunimasa, Toshiro Ohta, Shigenori Kumazawa: Nymphaeol-A isolated from Okinawan propolis suppresses angiogenesis and induces caspase-dependent apoptosis via inactivation of survival signals. *Evid. Based Complement. Alternat. Med.*, doi: 10. 1155/2013/826245. Epub 2013 Apr 24.
39. Shigenori Kumazawa, Josep Serra Bonvehí, Cristina Torres, Ahn Mok-Ryeon, Francisco José Orantes Bermejo: Chemical and functional characterization of propolis collected from East Andalusia (Southern Spain). *Phytochem. Anal.* **2013**, *24*, 608-615.
40. Kohsuke Shimomura, Yasumasa Sugiyama, Jun Nakamura, Mok-Ryeon Ahn, Shigenori Kumazawa: Component analysis of propolis collected on Jeju Island, Korea. *Phytochemistry* **2013**, *93*, 222-229.
41. Saori Inui, Takahiro Hosoya, Yuko Shimamura, Shuichi Masuda, Takeshi Ogawa, Hirokazu Kobayashi, Kenichi Shirafuji, Reuben Toli Moli, Ikue Kozone, Kazuo Shin-ya, Shigenori Kumazawa: Solophenols B-D and solomonin: new prenylated polyphenols isolated from propolis collected from the Solomon Islands and their antibacterial activity. *J. Agric. Food Chem.* **2012**, *60*, 11765-11770.
42. Michiyo Kubota, Chie Ishikawa, Yasumasa Sugiyama, Syuichi Fukumoto, Tsuyoshi Miyagi, Shigenori Kumazawa: Anthocyanins from the fruits of *Rubus Croceacanthus* and *Rubus sieboldii*, wild berry plants from Okinawa, Japan. *J. Food Comp. Anal.* **2012**, *28*, 179-182.
43. Kohsuke Shimomura, Saori Inui, Yasumasa Sugiyama, Miho Kurosawa, Jun Nakamura, Su-Jin Choi, Mok-Ryeon Ahn, Shigenori Kumazawa: Identification of the plant origin of propolis from Jeju Island, Korea, by the observation of honeybee behavior and phytochemical analysis. *Biosci. Biotechnol. Biochem.* **2012**, *76*, 2135-2138.
44. Shigenori Kumazawa, Yukiko Okuyama, Masayo Murase, Mok-Ryeon Ahn, Jun Nakamura, Tomoki Tatefuji: Antioxidant activity in honeys of various floral origins: Isolation and identification of antioxidants in peppermint honey. *Food Sci. Technol. Res.* **2012**, *18*, 679-685.
45. Ai Hatano, Takashi Nonaka, Megumi Yoshino, Mok-Ryeon Ahn, Shigemi Tazawa, Yoko Araki, Shigenori Kumazawa: Antioxidant activity and phenolic constituents of red propolis from Shandong, China. *Food Sci. Technol. Res.* **2012**, *18*, 577-584.
46. Saori Inui, Yuko Shimamura, Shuichi Masuda, Kenichi Shirafuji, Reuben T. Moli, Shigenori Kumazawa: A new prenylflavonoid isolated from propolis collected in the

- Solomon Island. *Biosci. Biotechnol. Biochem.* **2012**, *76*, 1038-1040.
47. Rie Ikeda, Masayoshi Yanagisawa, Nobuyuki Takahashi, Teruo Kawada, Shigenori Kumazawa, Noriyuki Yamaotsu, Izumi Nakagome, Shuichi Hirono, Takanori Tsuda: Brazilian propolis-derived components inhibit TNF- α -mediated downregulation of adiponectin expression via different mechanisms in 3T3-L1 adipocytes. *Biochim. Biophys. Acta - General Subjects* **2011**, *1810*, 695-703.
 48. Sayuri Agawa, Hiroyuki Sakakibara, Rei Iwata, Kayoko Shimoi, August Hergesheimer, Shigenori Kumazawa: Anthocyanins in mesocarp/epicarp and endocarp of fresh açai (*Euterpe oleracea* Mart.) and their antioxidant activities and bioavailability. *Food Sci. Technol. Res.* **2011**, *17*, 327-334.
 49. Tomoko Tanaka, Takeshi Ishii, Daisuke Mizuno, Taiki Mori, Ryouichi Yamaji, Yoshimasa Nakamura, Shigenori Kumazawa, Tsutomu Nakayama, Mitsugu Akagawa: (-)-Epigallocatechin-3-gallate-suppresses growth of AZ521 human gastric cancer cells by targeting the DEAD box RNA helicase p68. *Free Radic. Biol. Med.* **2011**, *50*, 1324-1335.
 50. Yoshinori Uekusa, Miya Kamihira-Ishijima, Osamu Sugimoto, Takeshi Ishii, Shigenori Kumazawa, Kozo Nakamura, Ken-ichi Tanji, Akira Naito, Tsutomu Nakayama: Interaction of epicatechin gallate with phospholipid membranes as revealed by solid-state NMR spectroscopy. *Biochim. Biophys. Acta - Biomembranes*, **2011**, *1808*, 1654-1660.
 51. Takeshi Ishii, Mitsugu Akagawa, Yuji Naito, Osamu Handa, Tomohisa Takagi, Taiki Mori, Shigenori Kumazawa, Toshikazu Yoshikawa, Tsutomu Nakayama: Pro-oxidant action of pyrroloquinoline quinone: characterization of protein oxidative modifications. *Biosci. Biotechnol. Biochem.* **2010**, *74*, 663-666.
 52. Shigenori Kumazawa, Mok-Ryeon Ahn, Takunori Fujimoto, and Masashi Kato: Radical-scavenging activity and phenolic constituents of propolis from different regions of Argentina. *Nat. Prod. Res.* **2010**, *24*, 804-812.

Award

1. Shigenori Kumazawa, World Class Professor Award, Republic of Indonesia 2018
2. Shigenori Kumazawa, Research Award at Society for Okinawa 2010
3. Shigenori Kumazawa, Research Award at The Japanese Society for Food Science and Technology 2007
4. Shigenori Kumazawa, BBB Journal Award 2002