

[Link to Research Activity](#)

# CURRICULUM VITAE

Update: 2/24/2016

## Shigenori KUMAZAWA, Ph.D.

---

-**Position:** Professor

-**Laboratory:** Laboratory of Food Analytical Chemistry

-**University:** Department of Food and Nutritional Sciences  
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

---

### *Papers Under Revision (2008-)*

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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.
7. Michiyo Kubota, Takahiro Hosoya, Syuichi Fukumoto, Tsuyoshi Miyagi, Shigenori Kumazawa: Anti-melanogenic compounds in *Rubus croceacanthus*. *J. Berry Res.* **2014**, *4*, 127-135.
8. Saori Inui, Takahiro Hosoya, Shigenori Kumazawa: Hawaiian propolis: comparative analysis and botanical origin. *Nat. Prod. Commun.* **2014**, *9*, 165-166.
9. 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.
10. 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.
11. 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.
12. 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.
  13. Su Jin Choi, Kohsuke Shimomura, Shigenori Kumazawa, Mok-Ryeon Ahn: Antioxidant properties and phenolic composition of propolis from diverse geographic regions in Korea. *Food Sci. Technol. Res.* **2013**, *19*, 211-222.
  14. 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.
  15. Saori Inui, Takahiro Hosoya, Yuko Shimamura, Shuichi Masuda, Takeshi Ogawa, Hirokazu Kobayashi, Kenichi Shirafuji, Reuben Toli Moli, Ikue Kozono, 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.
  16. 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.
  17. 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.
  18. 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.
  19. 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.
  20. 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.
  21. Rie Ikeda, Masayoshi Yanagisawa, Nobuyuki Takahashi, Teruo Kawada, Shigenori Kumazawa, Noriyuki Yamaotsu, Izumi Nakagome, Shuichi Hirono, Takanori Tsuda: Brazilian propolis-derived components inhibit TNF- $\alpha$ -mediated downregulation of adiponectin expression via different mechanisms in 3T3-L1 adipocytes. *Biochim. Biophys. Acta - General Subjects* **2011**, *1810*, 695-703.

22. 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.
23. 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.
24. 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.
25. 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.
26. Shigenori Kumazawa, Mok-Ryeon Ahn, Takunori Fujimoto, and Masashi Kato: Radical-scavenging activity and phenolic constituents of propolis from different regions of Argentina. *Nat. Pro. Res.* **2010**, *24*, 804-812.
27. Alexandra C.H.F. Sawaya, Patrícia Verardi Abdelnur, Marcos N. Eberlin, Shigenori Kumazawa, Mok-Ryeon Ahn, Keuk-Seung Bang, Narayanappa Nagaraja, Vassya S. Bankova, Houshang Afrouzan: Fingerprinting of Propolis by Easy Ambient Sonic-Spray Ionization Mass Spectrometry. *Talanta* **2010**, *81*, 100-108.
28. Hiroyuki Sakakibara, Takeshi Ogawa, Akiharu Koyanagi, Saori, Kobayashi, Toshinao Goda, Shigenori Kumazawa, Hirokazu Kobayashi and Kayoko Shimoi: Distribution and excretion of bilberry anthocyanines in mice. *J. Agric. Food Chem.* **2009**, *57*, 7681-7686.
29. Akiyuki Yokoyama, Hiroyuki Sakakibara, Alan Crozier, Yoshichika Kawai, Asako Matsui, Junji Terao, Shigenori Kumazawa, Kayoko Shimoi: Quercetin metabolites and protection against peroxynitrite-induced oxidative hepatic injury in rat. *Free Radic. Res.* **2009**, *43*, 913-921.
30. Shanta M. Messerli, Mok-Ryeon Ahn, Kazuhiro Kunimasa, Miyako Yanagihara, Tomoki Tatefuji, Ken Hashimoto, Lan Kluwe, Victor Mautner, Yoshihiro Uto, Hitoshi Hori, Shigenori Kumazawa, Kazuhiko Kaji, Toshiro Ohta, and Hiroshi Maruta: Artepillin C (ARC) in Brazilian green propolis selectively blocks the oncogenic PAK1 signaling and suppresses the growth of NF tumors in mice. *Phytother. Res.* **2009**, *23*, 423-427.
31. Mok-Ryeon Ahn, Kazuhiro Kunimasa, Shigenori Kumazawa, Tsutomu Nakayama,

- Kazuhiko Kaji, Yoshihiro Uto, Hitoshi Hori, Hideko Nagasawa, and Toshiro Ohta: Correlation between antiangiogenic activity and antioxidant activity of various components from propolis. *Mol. Nutr. Food Res.* **2009**, *53*, 643-651.
32. Kazuhiro Kunimasa, Mok-Ryeon Ahn, Tomomi Kobayashi, Ryoji Eguchi, Shigenori Kumazawa, Yoshihiro Fujimori, Takashi Nakano, Tsutomu Nakayama, Kazuhiko Kaji, and Toshiro Ohta: Brazilian propolis suppresses angiogenesis by inducing apoptosis in tube-forming endothelial cells through inactivation of survival signal ERK1/2. *Evid. Based Complement. Alternat. Med.* 2009 Apr 7.[Epub ahead of print].
  33. Masayo Murase, Manabu Kato, Aihua Sun, Takayuki Ono, Jun Nakamura, Tsutomu Sato, Shigenori Kumazawa: *Rhus javanica* var. *chinensis* as a new plant origin of propolis from Okayama, Japan. *Biosci. Biotechnol. Biochem.* **2008**, *72*, 2782-2784.
  34. Taiki Mori, Takeshi Ishii, Tomoko Tanaka, Daisuke Mizuno, Ryoichi Yamaji, Shigenori Kumazawa, Tsutomu Nakayama, and Mitsugu Akagawa: Covalent modification of proteins by green tea polyphenol (-)-epigallocatechin-3-gallate through autooxidation. *Free Radic. Biol. Med.* **2008**, *45*, 1384-1394.
  35. Shigenori Kumazawa, Jun Nakamura, Masayo Murase, Mariko Miyagawa, Mok-Ryeon Ahn, Syuichi Fukumoto: Plant origin of Okinawan propolis: honeybee behavior observation and phytochemical analysis. *Naturwissenschaften* **2008**, *95*, 781-786.
  36. Kenjiro Ogawa, Hiroyuki Sakakibara, Rei Iwata, Takeshi Ishii, Tsutomu Sato, Toshinao Goda, Kayoko Shimoi, Shigenori Kumazawa: Anthocyanin composition and antioxidant activity of the crowberry (*Empetrum nigrum*) and other berries. *J. Agric. Food Chem.* **2008**, *56*, 4457-4462.
  37. Takeshi Ishii, Sohei Ito, Shigenori Kumazawa, Toyo Sakurai, Satoru Yamaguchi, Taiki Mori, Tsutomu Nakayama, and Koji Uchida: Site-specific modification of positively-charged surfaces on human serum albumin by malondialdehyde. *Biochem. Biophys. Res. Commun.* **2008**, *371*, 28-32.
  38. Katsuko Kajiya, Shigenori Kumazawa, Akira Naitou, and Tsutomu Nakayama: Solid-state NMR analysis of the orientation and dynamics of epigallocatechin gallate, a green tea polyphenol, incorporated into lipid bilayers. *Magn. Reson. Chem.* **2008**, *46*, 174-177.

## Award

---

1. Shigenori Kumazawa, Research Award at Society for Okinawa 2010
2. Shigenori Kumazawa, Research Award at The Japanese Society for Food Science and Technology 2007
3. Shigenori Kumazawa, BBB Journal Award 2002