Curriculum Vitae

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Education

1999	PhD, Molecular Biology	Keio University, School of Medicine, Japan.
1989	MS, Anthropology	The University of Tokyo, Faculty of Science, Japan.
1987	BS, Biology	The University of Tokyo, Faculty of Science, Japan.

Professional Employment

2019 – present	Associate Research Professor, The Pennsylvania State University, Dept. of Anthropology.
2017 – 2019	Assistant Research Professor, The Pennsylvania State University, Dept. of Anthropology.
2004 – 2017	Research Associate, The Pennsylvania State University, Dept. of Anthropology.
2001 – 2004	Research Assistant, The Pennsylvania State University, Dept. of Anthropology.
1992 – 1994	Research Specialist, The University of Arizona, Dept. of Molecular and Cellular Biology.
1992 – 2001	Assistant Professor, Keio University School of Medicine, Dept. of Molecular Biology.
1989 – 1992	Research Scientist, The Central Research Laboratory of HITACHI Co. Ltd, Dept. of Medical Engineering.

Grants

2023 –	Genetic, tissue, and anatomical interactions in mandibulofacial dysmorphogenesis. NIH R01DE029832, MPI.
2022 –	Cartilage and bone of the lower jaw in development and disease. NIH R01DE031439, MPI (-2023 Co-Investigator; PI Prof. Joan Richtsmeier).
2018 –	The chondrocranium in craniofacial development and disease. NIH R01DE027677, Research Associate (PI: Prof. Joan Richtsmeier).
2014 – 2020	Craniosynostosis Network: Project I, From skull shape to cell activity in coronal craniosynostosis. NIH P01HD078233, Co-Investigator (PI: Prof. Joan Richtsmeier).
2007 – 2014	Collaborative research: Human origins and the molecular genetic basis of craniofacial evolution. NSF BCS0725227, Research Staff (PI: Prof. Kenneth M. Weiss).
2004 – 2009	Making waves: From pattern to structure in dental evolution. NSF BCS0343442, Co-Investigator (PI: Prof. Kenneth M. Weiss).

1999 – 2001 Cloning of the inherited nocturia gene. Project number 11770422, The Ministry of Education, Science and Culture, Japan, PI.

1997 Grant for publication. Keio University School of Medicine.

1996 – 1998 Molecular Analysis of the genes involved in cardiac defects. Project number 08044320, The Ministry of Education, Science and Culture, Japan, Co-Investigator (PI: Prof. Nobuyoshi Shimizu).

1995 – 1999 Genetic polymorphisms of the immunoglobulin Vλ gene segments. Center for the public welfare, Keio University School of Medicine, PI.

1995 – 1996 Analysis of the human immunoglobulin λ gene repertoire. Project number 07770245, The Ministry of Education, Science and Culture, Japan, PI.

Honor

2000 The SANSHIKAI prize for young scientists, Keio University School of Medicine.

Editorial Board

2022 – Frontiers in Physiology, Associate Editor, Craniofacial Biology and Dental Research Section.

Publication List

Book Chapters

8 Teeth and bones: overview. **Kawasaki, K.** 2024 in *Metabolism of Human Diseases; Organ Physiology and Pathophysiology*, 2nd edition, eds. Lammert, E. and Zeeb, M. (Springer Nature), revised.

7 Cartilage segmentation in high-resolution 3D micro-CT images via uncertainty-guided self-training with very sparse annotation. Zheng, H., Motch Perrine, S. M., Pitirri, M. K., **Kawasaki, K.**, Wang, C., Richtsmeier, J. T., and Chen, D. Z. 2020 in *Medical image computing and computer assisted intervention – MICCAI 2020*, eds. Martel., A. L., Abolmaesumi, P., Stoyanov, D., Mateus, D., Zuluaga, M. A., Zhou, S. K., Racoceanu, D., and Joskowicz, L., (Springer Nature Switzerland AG), pp. 802-812.

6 The origin and early evolution of SCPP genes and tissue mineralization in vertebrates. **Kawasaki, K.** 2018 in *Biomineralization—From molecular and nano-structural analyses to environmental science*, eds. Endo, K., Kogure, T., and Nagasawa, H. (Springer Nature Singapore), Chapter 17, 157-164.

5 The contribution of angiogenesis to variation in bone development and evolution. Percival, C. T., **Kawasaki, K.**, Huang, Y., Weiss, K. M., Jabs, E. W., Li, R., and Richtsmeier, J. 2017 in *Building bones*, eds. Percival, C. and Richtsmeier, J. T. (Cambridge Univ. Press), Chapter 2, 26-51.

4 Association of the chondrocranium and dermatocranium in early skull formation. **Kawasaki, K.** and Richtsmeier, J. T. 2017 in *Building bones*, eds. Percival, C. and Richtsmeier, J. T. (Cambridge Univ. Press), Chapter 3, 52-78 (Appendix, 303-315).

3 Teeth and bones: overview. **Kawasaki, K.** and Weiss, K. M. 2014 in *Metabolism of Human Diseases; Organ Physiology and Pathophysiology*, eds. Lammert, E. and Zeeb, M. (Springer, Wien), 81-85.

2 Origin and evolution of bone and dentin and of acidic secretory calcium-binding phosphoproteins. Sire, J.-Y. and **Kawasaki, K.** 2012 in *Frontiers between Science and Clinic in Odontology, Phosphorylated Extracellular Matrix Proteins of Bone and Dentin*, ed. Goldberg, M. (Bentham Science, Sharjah, UAE), Vol. 2, Chapter 1, 3-60.

1 Genetic basis for the evolution of vertebrate mineralized tissue. **Kawasaki, K.** and Weiss, K. M. 2007 in *Handbook of Biomineralization*, ed. Bäuerlein E. (Wiley-VCH, Weinheim), Vol. 1, Chapter 19, 329-348.

Review Articles

3 Odontogenic ameloblast-associated (ODAM) and amelotin: major players in hypermineralization of enamel and enameloid. **Kawasaki, K.** 2013 *J. Oral Biosci.* **55**: 85-90.

2 Biomineralization in humans: making the hard choices in life. **Kawasaki, K.**, Buchanan, A. V., and Weiss, K. M. 2009 *Ann. Rev. Genet.* **43**: 119-142. Invited.

1 SCPP gene evolution and the mineralization continuum. **Kawasaki, K.** and Weiss, K. M. 2008 *J. Dent. Res.* (*Crit. Rev. Oral Biol. Med.*) **87**: 520-531. Invited.

Original Journal Articles (peer reviewed)

75 The spotted parrotfish genome provides insights into the evolution of a coral reef dietary specialist (Teleostei: Labridae: Scarini: *Cetoscarus ocellatus*). Tea, Y.-K., Zhou, U., Ewart, K. M., Cheng, G., **Kawasaki, K.**, DiBattista, J. D., Ho, S. Y. W., Lo, N. and Fan, S. 2024 *Ecol. Evol.* **14**: e11148.

74 The immunoglobulin J chain is an evolutionarily co-opted chemokine. **Kawasaki, K.**, Ohta, Y., Castro, C. D., and Flajnik, M. F. 2024 *Proc. Natl. Acad. Sci. USA.* **121**: e2318995121. This article was introduced in ScienceDaily.

73 Embryonic cranial cartilage defects in the *Fgfr3*$^{Y367C/+}$ mouse model of achondroplasia. Motch Perrine, S. M., Sapkota, N., **Kawasaki, K.**, Zhang, Y., Chen, D. Z., Kawasaki, M., Durham, E. L., Heuzé, Y., Laurence Legeai-Mallet, L., and Richtsmeier, J. T. 2023 *Anat. Rec.* Published online.

72 Come together over me: cells that form the dermatocranium and chondrocranium in mice. Pitirri, M. K., Richtsmeier, J. T., Kawasaki, M., Coupe, A. P., Motch Perrine, S., and **Kawasaki, K.** 2023 *Anat. Rec.* Published online.

71 Ganoin and acrodin formation on scales and teeth in spotted gar: a vital role of enamelin in the unique process of enamel mineralization. **Kawasaki, K.**, Sasagawa, I., Mikami, M., Nakatomi, M., and Ishiyama, M. 2023 *J. Exp. Zool. B.* (*Mol. Dev. Evol.*) **340**: 455-468.

70 A dysmorphic mouse model reveals developmental interactions of chondrocranium and dermatocranium. Motch Perrine, S. M., Pitirri, M. K., Durham, E. L., Kawasaki, M., Zheng, H., Chen, D. Z., **Kawasaki, K.**, and Richtsmeier, J. T. 2022 *eLife* **11**: e76653.

69 Meckel's cartilage in mandibular development and dysmorphogenesis. Pitirri, M. K., Durham, E. L., Romano, N. A., Santos, J. I., Coupe, A. P., Zheng, H., Chen, D. Z., **Kawasaki, K.**, Jabs, E. W., Richtsmeier, J. T., Wu, M., and Motch Perrine, S. M. 2022 *Front. Genet.* **13**: 871927.

68 Convergent losses of SCPP genes and ganoid scales among non-teleost actinopterygians. Mikami, M., Ineno, T., Thompson, A. W., Braasch, I., Ishiyama, M., and **Kawasaki, K.** 2022 *Gene* **811**: 146091.

67 The genome of the bowfin (*Amia calva*) illuminates the developmental evolution of ray-finned fishes. Thompson, A. W., Hawkins, M. B., Parey, E., Wcisel, D. J., Ota, T., **Kawasaki, K.**, Funk, E., Losilla, M., Fitch, O. E., Pan, Q., Feron, R., Louis, A., Montfort, J., Milhes, M., Racicot, B. L., Childs, K. L., Fontenot, Q., Ferrara, A., David, S. R., McCune, A. R., Dornburg, A., Yoder, J. A., Guiguen, Y., Crollius, H. R., Berthelot, C., Harris, M. P., and Braasch, I. 2021 *Nature Genet.*, **53**: 1373-1384.

66 Odontogenesis-associated phosphoprotein truncation blocks ameloblast transition into maturation in Odaph$^{C41*/C41*}$ mice. Liang, T., Hu, Y., **Kawasaki, K.**, Zhang, H., Zhang, C., Saunders, T. L., Simmer, J., and Hu, J. C.-C. 2021 *Sci. Rep.* **11**: 1132.

65 Coevolution of enamel, ganoin, enameloid, and their matrix SCPP genes in osteichthyans. **Kawasaki, K.**, Keating, J. N., Nakatomi, M., Welten, M., Mikami, M., Sasagawa, I., Puttick, M. N., Donoghue, P. C. J., and Ishiyama, M. 2021 *iScience*, **24**: 102023.

64 It takes two: building the vertebrate skull from chondrocranium and dermatocranium. Pitirri, M. K.*****, **Kawasaki, K.***, and Richtsmeier, J. T. 2020 *Vert. Zool.*, **70**: 587-600. *****Contributed equally.

63 Phosphotungstic acid enhanced microCT: optimized protocols for embryonic and early postnatal mice. Lesciotto, K. M., Motch Perrine, S. M., Kawasaki, M., Stecko, T., Timothy R. M., T. M., **Kawasaki, K.**, Richtsmeier, J. T. 2020 *Dev. Dyn.*, **249**: 573-585.

62 The evolution of unusually small amelogenin genes in cetaceans; pseudogenization, X-Y gene conversion, and feeding strategy. **Kawasaki, K.**, Mikami, M., Goto, M., Shindo, J., Amano, M., and Ishiyama, M. 2020 *J. Mol. Evol.* **88**: 122-135.

61 Mutations in *RELT* cause autosomal recessive amelogenesis imperfecta. Kim, J.-W., Zhang, H., Seymen, F., Koruyucu, M., Hu, Y., Kang, J., Kim, Y. J., Ikeda, A., Kasimoglu, Y., Bayram, M., Chuhua Zhang, C., **Kawasaki, K.**, Bartlett, J. D., Saunders, T. L., Simmer, J. P., Hu, J. C.-C. 2019 *Clin. Genet.* **95**: 375-383.

60 Quantification of gene expression patterns to reveal the origins of abnormal morphogenesis. Martínez-Abadías, N., Mateu, R., Sastre, J., Motch Perrine, S., Yoon, M., Robert-Moreno, A., Swoger J., Russo, L., **Kawasaki, K.**, Richtsmeier, J., Sharpe, J. 2018 *eLife* **7**: e36405. This article was introduced in an eLife Digest.

59 A genomic survey of SCPP family genes in fishes provides novel insights into the evolution of fish scales. Lv, Y., **Kawasaki, K.**, Li, J., Li, Y., Bian, C., Huang, Y., You, X., Shi, Q. 2017 *Int. J. Mol. Sci.* **18**: 2432.

58 SCPP genes and their relatives in gar: rapid expansion of mineralization genes in osteichthyans. **Kawasaki, K.**, Mikami, M., Nakatomi, M., Braasch, I., Batzel, P., Postlethwait, J. H., Sato, A., Sasagawa, I., and Ishiyama, M. 2017 *J. Exp. Zool. B.* (*Mol. Dev. Evol.*) **328B**: 645-665. This article was recognized as a top 20 most read paper in this journal.

57 Development and evolutionary significance of the zygomatic bone. Heuzé, Y., **Kawasaki, K.**, Schwarz, T., Schoenebeck, J. J., and Richtsmeier, J. 2016 *Anat. Rec.* **299**: 1616-1630. Journal's top 10 downloaded papers in 2017.

56 The spotted gar genome illustrates vertebrate evolution and facilitates human-to-teleost comparisons. Braasch, I., Gehrke, A. R., Smith, J. J., **Kawasaki, K.**, Manousaki, T., Pasquier, J., Amores, A., Desvignes, T., Batzel, P., Catchen, J., Berlin, A. M., Campbell, M. S., Barrell, D., Martin, K. J., Mulley, J. F., Ravi, V., Lee, A. P., Nakamura, T., Chalopin, D., Fan, S., Wcisel, D., Cañestro, C., Sydes, J., Beaudry, F. E. G., Sun, Y., Hertel, J., Beam, M. J., Di Palma, F., Fasold, M., Ishiyama, M., Johnson, J., Kehr, S., Lara, M., Letaw, J. H., Litman, G. W., Litman, R. T., Mikami, M., Ota, T., Saha, N. R., Williams, L., Stadler, P. F., Wang, H., Taylor, J. S., Fontenot, Q., Ferrara, A., Searle, S. M. J., Aken, B., Yandell, M., Schneider, I., Yoder, J. A., Volff, J.-N., Meyer, A., Amemiya, C. T., Venkatesh, B., Holland, P. W. H., Guiguen, Y., Bobe, J., Shubin, N. H., Alföldi, J., Lindblad-Toh, K., and Postlethwait, J. H. 2016 *Nature Genet.* **48**: 427-437.

55 The dentin phosphoprotein repeat region and inherited defects of dentin. Yang, J., **Kawasaki, K.**, Lee, M., Reid, B. M., Nunez, S. M., Choi, M., Seymen, F., Koruyucu, M., Kasimoglu, Y., Estrella-Yuson, N., Lin, B. P. J, Simmer, J., and Hu J. C.-C. 2016 *Mol. Genet. Gen. Med.* **4**: 28-38.

54 Acute up-regulation of hedgehog signaling causes differential effects on cranial morphology. Singh, N., Dutka, T., Devenney, B., **Kawasaki, K.**, Reeves, R., and Richtsmeier, J. 2015 *Dis. Model Mech.* **8**: 271-279.

53 Evolution of *Klk4* and enamel maturation in eutherians. **Kawasaki, K.**, Hu, C-C. J., and Simmer, J. 2014 *Biol. Chem.* **395**: 1003-1013.

52 SCPP genes in the coelacanth: tissue mineralization genes shared by sarcopterygians. **Kawasaki, K.** and Amemiya, C. T. 2014 *J. Exp. Zool. B.* (*Mol. Dev. Evol.*) **322B**: 390-402.

51 Molecular evolution of matrix metalloproteinase 20. **Kawasaki, K.** and Suzuki, T. 2011 *Eur. J. Oral Sci.* **119** (Suppl. 1): 247-253.

50 The evolution of milk casein genes from tooth genes before the origin of mammals. **Kawasaki, K.**, Lafont, A.-G., and Sire, J.-Y. 2011 *Mol. Biol. Evol.* **28**: 2053-2061. This article was introduced in News of "Genome Engineering, scientific network and more" issued on June 15, 2011.

49 The SCPP gene family and the complexity of hard tissues in vertebrates. **Kawasaki, K.** 2011 *Cells Tissues Organs* **194**: 108-112.

48 The enamelin genes in lizard, crocodile and frog, and the pseudogene in the chicken provide new insights on enamelin evolution in tetrapods. Al-Hashimi, N., Lafont, A.-G., Delgado, S., **Kawasaki, K.**, and Sire, J.-Y. 2010 *Mol. Biol. Evol.* **27**: 2078-2094.

47 The SCPP gene repertoire in bony vertebrates and graded differences in mineralized tissues. **Kawasaki, K.** 2009 *Dev. Genes Evol.*, **219**: 147-157.

46 Identification and characterization of integrin-biding sialoprotein (IBSP) genes in reptile and amphibian. Shintani, S., Kamakura, M., Kobata, M., Toyosawa, S., Onishi, T., Sato, A., **Kawasaki, K.**, Weiss, K. M., Ooshima, T. 2008 *Gene* **424**: 11-17.

45 Gene duplication and the evolution of vertebrate skeletal mineralization. **Kawasaki, K.**, Buchanan, A. V., and Weiss K. M. 2007 *Cells Tissues Organs* **186**: 7-24.

44 Evolutionary genetics of tissue mineralization: the origin and evolution of the secretory calcium-binding phosphoprotein family. **Kawasaki, K.** and Weiss, K. M. 2006 *J. Exp. Zool. B.* (*Mol. Dev. Evol.*) **306B**: 295-316.

43 Phenogenetic drift in evolution: the changing genetic basis of vertebrate teeth. **Kawasaki, K.**, Suzuki, T., and Weiss, K. M. 2005 *Proc. Natl. Acad. Sci. USA.* **102**: 18063-18068.
This article was introduced in "PNAS in the News."

42 Finishing the euchromatic sequence of the human genome. International human genome consortium. 2004 *Nature* **431**: 931-945.

41 Genetic basis for the evolution of vertebrate mineralized tissue. **Kawasaki, K.**, Suzuki, T., and Weiss, K. M. 2004 *Proc. Natl. Acad. Sci. USA.* **101**: 11356-11361.

40 Mineralized tissue and vertebrate evolution: the secretory calcium-binding phosphoprotein gene cluster. **Kawasaki, K.** and Weiss, K. M. 2003 *Proc. Natl. Acad. Sci. USA.* **100**: 4060-4065.

39 Genomic analysis of Hox clusters in the sea lamprey *Petromyzon marinus*. Irvine, S. Q., Carr, J. L., Bailey, W. J., **Kawasaki, K.**, Shimizu, N., Amemiya, C. T., and Ruddle, F. H. 2002 *J. Exp. Zool. B. (Mol. Dev. Evol.)* **294**: 47-62.

38 The human ribosomal protein genes: sequencing and comparative analysis of 73 genes. Yoshihama, M., Uechi, T., Asakawa, S., **Kawasaki, K.**, Kato, S., Higa, S., Maeda, N., Minoshima, S., Tanaka, T., Shimizu, N., and Kenmochi, N. 2002 *Genome Res.* **12**: 379-390.

37 Genomic organization of the genes *Gtf2ird1*, *Gtf2i*, and *Ncf1* at the mouse chromosome 5 region syntenic to the human chromosome 7q11.23 Williams syndrome critical region. Bayarsaihan, D., Dunai, J., Greally, J. M., **Kawasaki, K.**, Sumiyama, K., Enkhmandakh, B., Shimizu, N., and Ruddle, F. H. 2002 *Genomics* **79**: 137-143.

36 Genomic structure and functional control of the *Dlx3-7* bigene cluster. Sumiyama, K., Irvine, S. Q., Stock, D. W., Weiss, K. M., **Kawasaki, K.**, Shimizu, N., Shashikant, C. S., Miller, W., and Ruddle, F. H. 2002 *Proc. Natl. Acad. Sci. USA.* **99**: 780-785.

35 Molecular cloning of a member of the facilitative glucose transporter gene family GLUT11 (SLC2A11) and identification of transcription variants. Sasaki, T., Minoshima, S., Shiohama, A., Shintani, A., Shimizu, A., Asakawa, S., **Kawasaki, K.**, and Shimizu, N. 2001 *Biochem. Biophys. Res. Comm.* **289**: 1218-1224.

34 Structure of human holocarboxylase synthetase gene and mutation spectrum of holocarboxylase synthetase deficiency. Yang, X., Aoki, Y., Li, X., Sakamoto, O., Hiratsuka, M., Kure, S., Taheri, S., Christensen, E., Inui, K., Kubota, M., Ohira, M., Ohki, M., Kudoh, J., **Kawasaki, K.**, Shibuya, K., Shintani, A., Asakawa, S., Minoshima, S., Shimizu, N., Narisawa, K., Matsubara, Y., and Suzuki, Y. 2001 *Human Genet.* **109**: 526-534.

33 The genomic structure and promoter region of the human Parkin gene. Asakawa, S., Tsunematsu, K., Takayanagi, A., Sasaki, T., Shimizu, A., Shintani, A., **Kawasaki, K.**, Mungall, A. J., Beck, S., Minoshima, S., and Shimizu, N. 2001 *Biochem. Biophys. Res. Comm.* **286**: 863-868.

32 Evolutionary dynamics of the human immunoglobulin κ locus and the germline repertoire of the Vκ genes. **Kawasaki, K.**, Minoshima, S., Nakato, E., Shibuya, K., Shintani, A., Asakawa, S., Sasaki, T., Klobeck, H.-G., Combriato, G., Zachau, H. G., and Shimizu, N. 2001 *Eur. J. Immunol.* **31:** 1017-1028.

31 Isolation and characterization of the UBASH3A gene on 21q22.3 encoding a potential nuclear protein with a novel combination of domains. Wattenhofer, M., Shibuya, K., Kudoh, J., Lyle, R., Michaud, J., Rossier, C., **Kawasaki, K.**, Asakawa, S., Minoshima, S., Berry, A., Bonne-Tamir, B., Shimizu, N., Antonarakis, S. E., and Scott, H. S. 2001 *Hum. Genet*. **108**: 140-147.

30 A physical map of the human genome. The international human genome mapping consortium. 2001 *Nature* **409**: 934-941.

29 Initial sequencing and analysis of the human genome. The international human genome sequencing consortium. 2001 *Nature* **409**: 860-921.

28 A SNP resource for human chromosome 22: extracting dense clusters of SNPs from the genomic sequence. Dawson, E., Chen, Y., Hunt, S., Smink, L. J., Hunt, A., Rice, K., Livingston, S., Bumpstead, S., Bruskiewich, R., Sham, P., Ganske, R., Adams, M., **Kawasaki, K.**, Shimizu, N., Minoshima, S., Roe, B., Bentley, D., and Dunham I. 2001 *Genome Res.* **11:** 170-178.

27 Insertion of β-satellite repeats identifies a transmembrane protease causing both congenital and childhood onset autosomal recessive deafness (DFNB8/10). Scott, H. S., Kudoh, J., Wattenhofer, M., Shibuya, K., Berry, A., Chrast, R., Guipponi, M., Wang, J., **Kawasaki, K.**, Asakawa, S., Minoshima, S., Younus, F., Mehdi, S. Q., Radhakrishna, U., Papasavvas, M.-P., Gehrig, C., Rossier, C., Korostishevsky, M., Gal, A., Shimizu, N., Bonne-Tamir, B., and Antonarakis, S. E. 2001 *Nat. Genet*. **27:** 59-63.

26 Cloning and characterization of a putative human glycerol 3-phosphate permease gene (SLC37A1 or G3PP) on 21q22.3: mutation analysis in two candidate phenotypes, DFNB10 and a glycerol kinase deficiency. Bartoloni, L., Wattenhofer, M., Kudoh, J., Berry, A., Shibuya, K., **Kawasaki, K.**, Wang, J., Asakawa, S., Talior, I., Bonne-Tamir, B., Rossier, C., Michaud, J., McCabe, E. R. B., Minoshima, S., Shimizu, N., Scott, H. S., and Antonarakis, S. E. 2000 *Genomics* **70:** 190-200.

25 Isolation and characterization of a human chromosome 21q22.3 gene (WDR4) and its mouse homologue that code for a WD-repeat protein. Michaud, J., Kudoh, J., Berry, A., Bonne-Tamir, B., Lalioti, M. D., Rossier, C., Shibuya, K., **Kawasaki, K.**, Asakawa, S., Minoshima, S., Shimizu, N., Antonarakis, S. E., and Scott, H. S. 2000 *Genomics* **68:** 71-79.

24 Refined localization of autosomal recessive non-syndromic deafness DFNB10 locus using 34 novel microsatellite markers, genomic structure and exclusion of six known genes in the region. Berry, A., Scott, H. S., Kudoh, J., Talior, I., Korostichevsky, M., Wattenhofer, M., Guipponi, M., Barras, C., Rossier, C., Shibuya, K., Wang, J., **Kawasaki, K.**, Asakawa, S., Minoshima, S., Shimizu, N., Antonarakis, S., and Bonne-Tamir, B. 2000 *Genomics* **68:** 22-29.

23 Propagation and maintenance of the 119 human immunoglobulin Vλ genes and pseudogenes during evolution. **Kawasaki, K.**, Minoshima, S., and Shimizu, N. 2000 *J. Exp. Zool. B. (Mol. Dev. Evol.)* **288**: 120-134.

22 Isolation of Two Novel Genes, DSCR5 and DSCR6, from Down Syndrome Critical Region on Human Chromosome 21q22.2. Shibuya, K., Kudoh, J., Minoshima, S., **Kawasaki, K.**, Asakawa, S., and Shimizu, N. 2000 *Biochem. Biophys. Res. Commun.* **271**: 693-698.

21 Isolation and initial characterization of a novel zinc finger gene, DNMT3L on 21q22.3, related to cytosine-5-methyltransferase 3 gene family. Aapola, U., Shibuya, K., Scott, H. S., Ollila, J., Vihinen, M., Heino, M., Shintani, A., **Kawasaki, K.**, Minoshima, S., Krohn, K., Antonarakis, S. E., Shimizu, N., Kudoh, J., and Peterson, P. 2000 *Genomics* **65**: 293-298.

20 The DNA sequence of human chromosome 21. International human chromosome 21 sequencing consortium. 2000 *Nature* **405**: 311-319.

19 Hox cluster genomics in the horn shark, *Heterodontus francisci*. Kim, C.-B., Amemiya, C., Bailey, W., **Kawasaki, K.**, Mezey, J., Miller, W., Minoshima, S., Shimizu, N., Wagner, G., and Ruddle, F. 2000 *Proc. Natl. Acad. Sci. USA* **97**: 1655-1660.

18 The DNA sequence of human chromosome 22. International human chromosome 22 sequencing consortium. 1999 *Nature* **402**: 489-495.

17 Molecular cloning of a novel putative Ca^{2+} channel protein (TRPC7) highly expressed in brain. Nagamine, K., Kudoh, J., Minoshima, S., **Kawasaki, K.**, Asakawa, S., Ito, F., and Shimizu, N. 1998 *Genomics* **54**: 124-131.

16 Identification and characterization of a novel cyclic nucleotide phosphodiesterase gene (PDE9A) that maps to 21q22.3: alternative splicing of mRNA transcripts, genomic structure and sequence. Guipponi, M., Scott, H. S., Kudoh, J., **Kawasaki, K.**, Shibuya, K., Shintani, A., Asakawa, S., Chen, H., Lalioti, M. D., Rossier, C., Minoshima, S., Shimizu, N., and Antonarakis, S. E. 1998 *Hum. Genet.* **103**: 386-392.

15 Positional cloning of the APECED gene. Nagamine, K., Peterson, P., Scott, H. S., Kudoh, J., Minoshima, S., Heino, M., Krohn, K. J. E., Lalioti, M. D., Mullis, P. E., Antonarakis, S. E., **Kawasaki, K.**, Asakawa, S., Ito, F., and Shimizu, N. 1997 *Nat. Genet.***17**: 393-398.

14 Genomic organization and complete nucleotide sequence of the TMEM1 gene on human chromosome 21q22.3. Nagamine, K., Kudoh, J., **Kawasaki, K.**, Minoshima, S., Asakawa, S., Ito, F., and Shimizu, N. 1997 *Biochem. Biophys. Res. Comm.* **235**: 185-190.

13 Genomic organization and complete nucleotide sequence of the human *PWP2* gene on chromosome 21. Nagamine, K., Kudoh, J., Minoshima, S., **Kawasaki, K.**, Asakawa, S., Ito, F., and Shimizu, N. 1997 *Genomics* **42**: 528-531.

12 Human BAC library: construction and rapid screening. Asakawa, S., Abe, I., Kudoh, Y., Kishi, N., Wang, Y., Kubota, R., Kudoh, J., **Kawasaki, K.**, Minoshima, S., and Shimizu, N. 1997 *Gene* **191**: 69-79.

11 Localization of 16 exons to a 450-kb region involved in the autoimmune polyglandular disease type I (APECED) on human chromosome 21q22.3. Kudoh, J., Nagamine, K., Asakawa, S., Abe, I., **Kawasaki, K.**, Maeda, H., Tsujimoto, S., Minoshima, S., Ito, F., and Shimizu, N. 1997 *DNA Res.* **4**: 45-52.

10 One-megabase sequence analysis of the human immunoglobulin λ gene locus. **Kawasaki, K.**, Minoshima, S., Nakato, E., Shibuya, K., Shintani, A., Schmeits, J. L., Wang, J., and Shimizu, N. 1997 *Genome Res.* **7**: 250-261.

9 Isolation of cDNA for a novel human protein KNP-I that is homologous to the *E. coli* SCRP-27A protein from the autoimmune polyglandular disease type I (APECED) region of chromosome 21q22.3. Nagamine, K., Kudoh, J., Minoshima, S., **Kawasaki, K.**, Asakawa, S., Ito, F., and Shimizu, N. 1996 *Biochem. Biophys. Res. Comm.* **225**: 608-616.

8 The mammalian *single-minded* (*SIM*) gene: mouse cDNA structure and diencephalic expression indicate a candidate gene for Down syndrome. Yamaki, A., Noda, S., Kudoh, J., Shindoh, N., Maeda, H., Minoshima, S., **Kawasaki, K.**, Shimizu, Y., and Shimizu, N. 1996 *Genomics* **35**: 136-143.

7 Narrowing the critical region for a rhabdoid tumor locus in 22q11. Biegel, J. A., Allen, C. S., **Kawasaki, K.**, Shimizu, N., Budarf, M. L., and Bell, C. J. 1996 *Genes Chromosomes & Cancer* **16**: 94-105.

6 The organization of the human immunoglobulin λ gene locus. **Kawasaki, K.**, Minoshima, S., Schooler, K., Kudoh, J., Asakawa, S., de Jong, P. J., and Shimizu, N. 1995 *Genome Res.* **5**: 125-134.

5 Human gene mapping and chromosome sorting by laser technology. Shimizu, N., Minoshima, S., Kudoh, J., **Kawasaki, K.**, Wang, Y., Shimizu, Y., and Sakai, K. 1993 *Keio J. Med.* **42**: 212-216.

4 Shotgun polymerase chain reaction: Construction of clone libraries specific to a *Not* I fragment of flow-sorted chromosome 22. **Kawasaki, K.**, Minoshima, S., Kudoh, J., and Shimizu, N. 1992 *Genomics* **13**: 109-114.

3 Methylation status of ribosomal RNA gene clusters in the flow-sorted human acrocentric chromosomes. **Kawasaki, K.**, Minoshima, S., Kudoh, J., Fukuyama, R., and Shimizu, N. 1992 *Mamm. Genome* **3**: 173-178.

2 Isolation of giant DNA fragments from flow-sorted human chromosomes. Minoshima, S., **Kawasaki, K.**, Fukuyama, R., Maekawa, M., Kudoh, J., and Shimizu, N. 1990 *Cytometry* **11**: 539-546.

1 Mega base map of the epidermal growth factor (EGF) receptor gene flanking regions and structure of the amplification units in EGF receptor-hyperproducing squamous cell carcinoma cells. **Kawasaki, K.**, Kudoh, J., Omoto, K., and Shimizu, N. 1988 *Jpn. J. Cancer Res. (Gann)*, **79**: 1174-1183.

Other Publications

2 Reading the palimpsests of life. Weiss, K. M. and **Kawasaki, K.** 2006 *Evol. Anthropol.* **15**: 207-211.

1 Molecular strategies for physical mapping and fine structure analysis of flow-sorted human chromosome 21. 1991 Shimizu, N., Minoshima, S., Kudoh, J., Fukuyama, R., Sakai, K., and **Kawasaki, K.** in *the first international conference on electrophoresis, supercomputing, and the human genome*, ISBN 9810202733, (World Scientific Pub. Co. Inc., Singapore), pp. 212-218.

Symposia and International Meetings (invited or selected speaker)

32 The evolution of enamel matrix protein genes: enamel formation without amelogenin. **Kawasaki, K.** Session, "Amelogenesis 1" in Enamel 10, International Symposium on Dental Enamel, May 2022 Pittsburgh, Pennsylvania.

31 Differentiation of osteoblast lineage cells that form dermal bones and suture of the anterior cranial vault in development and disease. Pitirri, M. K., Kawasaki, M., Norwood, J., Kim, Y., **Kawasaki, K.**, and Richtsmeier, J. T. Session, "Cellular mechanisms of development as a key understanding vertebrate evolution" in the Annual Meeting at Experimental Biology, April 2021 Virtual. Selected as the second-place winner of the postdoctoral platform presentation award.

30 Cells, signals, and processes: building dermal bones and sutures of the anterior cranial vault. Pitirri, M. K., Kawasaki, M., Norwood, J. N., **Kawasaki, K.**, Richtsmeier, J. T. Session, "Molecular regulation of

craniofacial development" in the 48th annual meeting of the Society for Craniofacial Genetics and Developmental Biology, October 2020 Virtual.

29 Cartilage Segmentation in High-Resolution 3D Micro-CT Images via Uncertainty-Guided Self-Training with Very Sparse Annotation. Zheng, H., Perrine, S. M., Pitirri, M. K., **Kawasaki, K.**, Wang, C., Richtsmeier, J., and Chen, D. "Image segmentation" in the Medical Image Computing and Computer Assisted Intervention Society (MICCAI) 2020 Conference, October 2020 Lima, Peru (virtual).

28 Dermatocranium-chondrocranium interaction in craniofacial development and evolution. **Kawasaki, K.** and Richtsmeier, J. T. Symposium, "Recent advances in chondrocranium research" in the International Congress of Vertebrate Morphology, July 2019 Prague, the Czech Republic.

27 The evolution of hard tissues composing teeth and scales and the SCPP gene family: genome and molecular evolutionary analysis. **Kawasaki, K.** Symposium "Advances in studies of the evolution of teeth: Integration of morphological and molecular evolutionary studies" in the 124th Annual Meeting of the Japanese Association of Anatomists, March 2019 Niigata, Japan.

26 Dysmorphic phenotypes as biomarkers of key genetic signaling pathways in development. Mateu, R., Gonzàlez, R., Sastre, J., Motch Perrine, S. M., **Kawasaki, K.**, Robert-Moreno, A., Swoger, J., González, A., Sevillano, X., Starbuck, J., Richtsmeier, J., Sharpe, J., and Martínez-Abadías, N. Symposium "What does genotype-phenotype association tell us about development?" in the European Society for Evolutionary Developmental Biology, June 2018 Galway, Ireland.

25 The SCPP gene family and biomineralization in vertebrates. **Kawasaki, K.** Symposium, "Genome-based analysis of biomineralization" in 14th International Symposium on Biomineralization (BIOMIN XIV), October 2017 Tsukuba, Japan. Keynote speaker.

24 Three-dimensional visualization of the embryonic murine chondrocranium using contrast-enhanced microCT. Ryan, T. M., Stecko. T., Perrine, S. M., Zheng, H., Chen, D. Z., **Kawasaki, K.**, and Richtsmeier, J. Session, "Increasing contrast" in the Tomography for Scientific Advancement (ToScA) Symposium, June 2017 Austin, Texas.

23 The origin of dental enamel. **Kawasaki, K.** Satellite symposium, "Phylogenetic analysis of enamel protein genes—from fish to mammals—" in the 57th Annual Meeting of the Japanese Association for Oral Biology, 2015 Niigata, Japan. Co-organizer.

22 Developmental and evolutionary significance of the zygoma. Richtsmeier, L., Huezé, Y., **Kawasaki, K.**, and Schoenebeck, J. Symposium, "The zygomatic bone" in the Annual Meeting at Experimental Biology, 2015 Boston, Massachusetts.

21 Developmental context and the genotype-phenotype map. Richtsmeier, L., Flaherty, K., Perrine, S., and **Kawasaki, K.** Symposium, "Anatomy and genetics: how phenomics informs our understanding of genomes" in the Annual Meeting at Experimental Biology, 2015 Boston, Massachusetts.

20 Spatial association of the dermatocranium with the chondrocranium in early skull formation. **Kawasaki, K.** and Richtsmeier, J. T. Session, "Building bones: studies of bone growth in anthropology" in the 83rd Annual Meeting of the American Association of Physical Anthropologists (AAPA), 2014 Calgary, Alberta.

19 C4orf26 expression during enamel formation. Richardson, A. S., Wang, S., **Kawasaki, K.**, Hu, J. C., and Simmer, J. P. Session, "Mineralized tissue" in General Session and Exhibition of the 91st Annual Meeting of the International Association for Dental Search (IADR), 2013 Seattle, Washington.

18 Genetic basis of the evolution of vertebrate mineralized tissues. **Kawasaki, K.** Satellite symposium, "Reconstruction of the phylogeny of mineralized tissues by studying teeth and scales" in the 53rd Annual Meeting of the Japanese Association for Oral Biology, 2011 Gifu, Japan.

17 Molecular evolution of matrix metalloproteinase 20. **Kawasaki, K.** and Suzuki, T. Session, "Evolution & Ameloblastin" in Enamel VIII Conference, 2011 Utica, Illinois.

16 Duplication of SCPP genes and graded differences in vertebrate mineralized tissues. **Kawasaki, K.** Session, "Evolution of mineralization: universal lessons for conservation" in the 10th International Conference on the Chemistry and Biology of Mineralized Tissues, 2010 Scottsdale, Arizona.

15 Evolutionary analysis of enamelin in mammals, sauropsids and amphibians provides new insights on its function. Delgado, S., Al-Hashimi, N., Lafont, A. -G., **Kawasaki, K.**, and Sire, J. -Y. Session, "Evolution and development" in the 10th Tooth Morphogenesis and Differentiation Meeting, 2010 Berlin, Germany.

14 The evolution of milk casein genes before mammals: the origin of calcium-rich milk. **Kawasaki, K.** Session, "Recent progresses in evolutionary genomics" in the 12th Annual Meeting for the Society of Evolutionary Studies, 2010 Tokyo, Japan.

13 An integrated systems approach to craniofacial development. Richtsmeier, J., Lambert, B., Martinez-Abadias, N., Wang, Y., Jabs, E. W., Percival, C., **Kawasaki, K.**, Ryan, T., Buchanan, A., and Weiss, K. Symposium, "Genetic and developmental basis of the evolution of complex trait" in the 33rd meeting of the European Society for Evolutionary Developmental Biology, 2010 Paris, France.

12 The genetics of normal variation in the mammalian dentition. Sholtis, S. J., **Kawasaki, K.**, Shashikant, C. S., and Weiss, K. M. Session, "Anthropological Genetics of Craniodental Evolution" in the 78th Annual Meeting of the American Association of Physical Anthropologists, 2009 Chicago, Illinois.

11 The origin and diversification of vertebrate mineralized tissues: genome duplication and tandem gene duplication. **Kawasaki, K.** Symposium, "Evolution of Genome and Biomineralization: from Oceanographic Conditions to Morphogenesis" in the 10th Annual Meeting for the Society of Evolutionary Studies, 2008 Tokyo, Japan.

10 Birth and death of genes: Tooth genes and milk genes. **Kawasaki, K.** International satellite symposium, "Evolutionary Studies for High School Students" in the 10th Annual Meeting for the Society of Evolutionary Studies, 2008 Hayama, Japan.

9 Primate dental morphology: something different but nothing new. Sholtis, S., **Kawasaki, K.**, and Weiss, K. M. Symposium, "Origins: the Genetic Evidence" in the 76th Annual Meeting of the American Association of Physical Anthropologists, 2007 Philadelphia, Pennsylvania.

8 The changing genetic basis of vertebrate mineralized tissues. **Kawasaki, K.** and Weiss, K. M. Symposium, "Mineralization genes of bones and teeth: the new evolutionary synthesis" in the 84th General Session and Exhibition of the International Association for Dental Search (IADR), 2006 Brisbane, Australia.

7 Application of Fugu (*Takifugu rubripes*) to developmental biology. Suzuki, T., **Kawasaki, K.**, Uji, S., and Kurokawa, T. The International Symposium on Standardization of Medaka Bioresources, 2005 Nagoya, Japan.

6 Evolutionary genetics of dental development: teeth as part of vertebrate structural organization. **Kawasaki, K.** and Weiss, K. M. Symposium, "Evolution and Development of Vertebrate Dentition." in the Society for Integrative and Comparative Biology Annual Meeting, 2005 San Diego, California.

5 Phenogenetic approaches to complex traits: maps, networks, and phylogeny. Weiss, K. M. and **Kawasaki, K.** 2004 American Association for the Advanced Science (AAAS) Annual Meeting, 2004 Seattle, Washington.

4 Molecular phylogeny of vertebrate hard tissue. **Kawasaki, K.** and Weiss, K. M. Symposium, "Molecular Evolution of Hard Tissue." in the 16th International Congress of the International Federation of Associations of Anatomists (IFAA), 2004 Kyoto, Japan.

3 Genetic basis for the evolution of vertebrate mineralized tissue. **Kawasaki, K.** and Weiss, K. M. Symposium, "Origins and evolution of genetic systems." in Genomes and Evolution 2004, Joint annual

meeting of The Society for Molecular Biology and Evolution and The American Genetic Association, 2004 Pennsylvania State University.

2 Contiguous 1,022,335 nucleotide sequence of the human immunoglobulin λ gene locus on chromosome 22. **Kawasaki, K.**, Minoshima, S., Nakato, E., Shibuya, K., Shintani, A., Schmeits, J. L., Wang, J., and Shimizu, N. Session, "Sequencing of the human genome" in the Human Genome Mapping 1997, 1997 Toronto, Canada.

1 Physical mapping of the immunoglobulin lambda (IGL) gene cluster region on human chromosome 22q11.2. **Kawasaki, K.**, Minoshima, S., Kudoh, J., Schooler, K., Eki, T., Chumacov, I., Cohen, D., Soeda, E., de Jong, P., and Shimizu, N. Session, "Chromosome specific session IV, chromosomes 22, X, and Y" in the Human Genome Mapping Workshop 93, 1993 Kobe, Japan.

Other Meetings (selected)

20 Contributions of type-II collagen gene-expressing cells to the ossification of the dentary and other intramembranous bones and development of teeth. Coupe, A., Kawasaki, M., Dickerson, C., Motch Perrine, S. M., Richtsmeier, J. T., **Kawasaki, K.** Anatomy Connected, March 2024 Toronto, Canada.

19 Dickerson, C., Kawasaki, M., Coupe, A., Wu, M., Motch Perrine, S. M., Richtsmeier, J. T., **Kawasaki, K.** Anatomy Connected, March 2024 Toronto, Canada.

18 Developmental dynamics of Meckel's cartilage and the dentary in mice. Foster, F. R., Coupe, A., Hsi, M., Kawasaki, M., Dickerson, C., Sapkota, N., Zhang, C. Y., Wu, M., Jabs, E. W., Chen, D. Z., Motch Perrine, S., Richtsmeier, J. T., and **Kawasaki, K.** Anatomy Connected, March 2024 Toronto, Canada.

17 Effect of cortex specific overexpression of BAF170 on cranial growth. Veltri, M. F., Durham, E. L., Lesciotto, K. M., Coupe, A., Kawasaki, M., Motch-Perrine, S., Stoykova, A., Tuoc, T. C., **Kawasaki, K.**, and Richtsmeier, J. T. 49th Annual Meeting of the Society for Craniofacial Genetics and Developmental Biology, October 2021 Virtual.

16 SOX9, Meckel's cartilage, and mandibular development. Motch Perrine, S. M., Durham, E. L., Zheng, H., **Kawasaki, K.**, Holms, G., Wu, M., Chen, D. Z., Jabs, E. W., and Richtsmeier, J. T. 49th Annual Meeting of the Society for Craniofacial Genetics and Developmental Biology, October 2021 Virtual.

15 Abnormal activity in chondrocytes of the braincase floor in developing Fgfr2c$^{C342Y/+}$ Crouzon syndrome mice. Durham, E. L., **Kawasaki, K.**, Kawasaki, M., Pitirri, M. K., Motch Perrine, S. M., and Richtsmeier, J. T. 49th Annual Meeting of the Society for Craniofacial Genetics and Developmental Biology, October 2021 Virtual.

14 Assessing gene expression patterns in mouse models to test hypotheses about human head evolution. Rovira, M., Mateu, R., Sastre, J., Robert-Moreno, A., Swoger, J., Motch Perrine, S. M., **Kawasaki, K.**, Sharpe, J., Richtsmeier, J. and Martínez-Abadías, N. Annual Meeting at Experimental Biology, April 2021 Virtual.

13 Postnatal cranial characterization in a mouse model of cortex-specific overexpression of BAF170. Perrine, S. M., Lesciotto, K. M., **Kawasaki, K.**, Durham, E. L., Stoykova, A., Tuoc, T. C., and Richtsmeier, J. T. Annual Meeting at Experimental Biology, April 2021 Virtual.

12 Abnormalities in cartilage in developing *Fgfr2c*$^{C342Y/+}$ Crouzon syndrome mice. Durham, E. L., **Kawasaki, K.**, Kawasaki, M., Pitirri, M. K., Motch Perrine, S. M., and Richtsmeier, J. T. Annual Meeting at Experimental Biology, April 2021 Virtual.

11 Cranial base abnormalities in developing *Fgfr2c*$^{C342Y/+}$ Crouzon syndrome mice. Durham, E. L., **Kawasaki, K.**, Kawasaki, M., Motch Perrine, S. M., and Richtsmeier, J. T. 48th Annual Meeting of the Society for Craniofacial Genetics and Developmental Biology, October 2020 Virtual.

10 Measuring gene expression pattern to understand limb morphogenesis. Martínez-Abadías, N., Mateu, R., Sastre, J., Robert-Moreno, A., Swoger, J., **Kawasaki, K.**, Richtsmeier, J., and Sharpe, J. Limb development and regeneration: new tools for classic model system, EMBO Workshop, 2019 Barcelona, Spain.

9 Three-dimensional visualization of soft tissues in embryonic and early postnatal mice using phosphotungstic acid enhanced microCT. Lesciotto, K. M., Perrine, S. M. M., Kawasaki, M., Stecko, T., Ryan, T. M., **Kawasaki, K.**, and Richtsmeier, J. T. Annual Meeting at Experimental Biology, 2019 Orlando, Florida.

8 The role of the chondrocranium in development of craniosynostosis phenotypes. Perrine, S. M. M., Stecko, T., Ryan, T., Wang, E., **Kawasaki, K.**, and Richtsmeier, J. T. Craniofacial Morphogenesis and Tissue Regeneration, Gordon Research Conference, 2018 Lucca (Barga), Italy.

7 Identification of a novel vomer phenotype in the Fgfr2c$^{C342Y/+}$ mouse model of Crouzon syndrome. Lesciotto, K. M., Perrine, S. M. M., **Kawasaki, K.**, and Richtsmeier, J. T. Annual Meeting at Experimental Biology, 2018 San Diego, California.

6 Craniosynostosis network: providing the temporal context to embryological research with mice. Flaherty, K., Musy, M., **Kawasaki, K.**, Kawasaki, M., Sharpe, J., and Richtsmeier, J. 11th Annual Structural Birth Defects Meeting, 2017 Bethesda, Maryland.

5 Precise phenotyping reveals early limb defects in Apert syndrome. Martínez-Abadías, N., Mateu, R., Sastre, J., Robert-Moreno, A., Swoger, J., **Kawasaki, K.**, Richtsmeier, J., and Sharpe, J. III Iberian symposium on geometric morphometrics, 2017 Girona, Spain.

4 Moving towards a mouse model for choanal atresia. Lesciotto, K. M., Perrine, S. M. M., Flaherty, K., **Kawasaki, K.**, Holmes, G., Jabs, E. W., and Richtsmeier, J. T. 38th Annual Meeting of the Society for Craniofacial Genetics and Developmental Biology, 2015 Baltimore, Maryland.

3 Influence of angiogenesis on craniofacial bone morphology. Percival, C., Winkler, A., **Kawasaki, K.**, Pankratz, T., Jabs, E., Wang, L., Weiss, K., and Richtsmeier, J. 82th Annual Meeting of the American Association of Physical Anthropologists, 2013 Knoxville, Tennessee.

2 The influence of endothelial expression of an Apert syndrome mutation on craniofacial bone development. Percival, C., **Kawasaki, K.**, Pankratz, T., Jabs, E., Weiss, K., and Richtsmeier, J. Annual Mouse Molecular Genetics Conference, 2012 Pacific Grove, California.

1 Genetic mapping of natural variation in the teeth of recombinant inbred mice. Sholtis, S., **Kawasaki, K.**, and Weiss, K. M. 75th Annual Meeting of the American Association of Physical Anthropologists, 2006 Anchorage, Alaska.

Seminars

23 Inspiring Scientific Curiosity and Discovery Series, Webinar American Association for Anatomy. February 7, 2024. A quest to understand skull development. Richtsmeier, J., Motch Perrine, S., and **Kawasaki, K.** (3 speakers)

22 Keio University, School of Medicine, Tokyo, Japan. April 1, 2019. X-Y gene conversion of the amelogenin gene in cetaceans.

21 Keio University, School of Medicine, Tokyo, Japan. October 17, 2017. The SCPP gene family and biomineralization in vertebrates.

20 Keio University, School of Medicine, Tokyo, Japan. September 9, 2015. The origin of dental enamel.

19 University of Pittsburgh, McGowan Institute for Regenerative Medicine, July 20, 2011. Evolution of genetic basis of mineralized tissues in vertebrates.

18 McGill University, Faculty of Dentistry. February 8, 2011. Evolution of the genetic basis of mineralized tissues.

17 Pennsylvania State University, Institute of Molecular Evolutionary Genetics. December 1, 2010. The evolution of milk casein genes from tooth genes.

16 The University of Tokyo, Graduate School of Agricultural and Life Sciences, Tokyo, Japan. September 11, 2009. The diversity of vertebrate mineralized tissues and gene duplication.

15 Keio University, School of Medicine, Tokyo, Japan. September 8, 2009. Genetic complexity of mineralized skeletal tissues.

14 Pennsylvania State University, Institute of Molecular Evolutionary Genetics. October 29, 2008. Duplication of SCPP genes and diversification of vertebrate mineralized tissues.

13 The University of Tokyo, Chiba, Japan. August 28, 2008. The origin and diversification of vertebrate mineralized tissues.

12 Tsurumi University, School of Dentistry, Yokohama, Japan. August 27, 2008. Diversification of vertebrate mineralized tissues: bone, dentin, enameloid, enamel, and gene duplication.

11 Pennsylvania State University, Institute of Molecular Evolutionary Genetics. October 11, 2006. Gene duplication and the evolution of skeletal mineralization.

10 Pennsylvania State University, Institute of Molecular Evolutionary Genetics. November 10, 2004. Molecular evolution of vertebrate mineralized skeleton.

9 Kyorin University Scientific Frontier Workshop, Kobe Japan. September 13, 2004. The origin and evolution of the mineralized skeleton in vertebrates.

8 Keio University, School of Medicine, Tokyo, Japan. September 9, 2004. The origin and evolution of vertebrate mineralized skeletal tissues.

7 Kyorin University, Department of Health Sciences, Tokyo Japan. September 8, 2004. The origin and evolution of vertebrate mineralized skeleton.

6 The University of Tokyo, Department of Biology, Tokyo Japan. September 7, 2004. The origin and evolution of vertebrate mineralized tissues.

5 Tsurumi University, School of Dentistry, Yokohama, Japan. September 2, 2004. Molecular phylogeny of vertebrate hard tissue.

4 National Institute of Genetics, Mishima, Japan. 1000th Biological symposium. August 30, 2004. The origin and evolution of vertebrate mineralized skeleton.

3 Pennsylvania State University, Institute of Molecular Evolutionary Genetics. October 8, 2003. Paralog after paralog in teeth and bones.

2 Rutgers University, Department of Genetics. April 3, 2003. Teeth, bones, and other things: the role of genes in the patterning of vertebrate structures and the structuring of vertebrate patterns. With Prof. Kenneth M. Weiss

1 Pennsylvania State University, Institute of Molecular Evolutionary Genetics. October 16, 2002. Calcium-binding phosphoproteins: the origin of vertebrates?

Reviewed Grant Applications

National Science Foundation
Agence National de la Recherche, France
The Portuguese Foundation for Science and Technology
Natural Environment Research Council (NERC), United Kingdom
The Czech Science Foundation

Reviewed Journal Articles

Acta Zoologica, Archives of Oral Biology, Bioessays, BMC Evolutionary Biology, BMC Oral Health, Cell & Tissue Research, Cells Tissues Organs, Cellular and Molecular Life Sciences, Cellular Physiology and Biochemistry, Communications Biology, Development, Developmental Biology, Developmental Dynamics, Developmental and Comparative Immunology, DNA Research, eLife, Evolution and Development, Frontiers in Physiology, Gene, Human Genome Variation, International Journal of Biological Sciences, Journal of Dental Research, Journal of Experimental Zoology B (Molecular and Developmental Evolution), Journal of Fish Biology, Journal of Molecular Evolution, Journal of Structural Biology, Molecular Biology and Evolution, Molecular Genetics & Genomic Medicine, Nature Immunology, Peptides, PLoS ONE, Proceedings of the National Academy of Sciences of the United States of America, Proceedings of the Royal Society B, Science, Scientific Reports.

Reviewed Book Chapters

1 Evolutionary Cell Process in Primates. Eds. Pitirri, M. K. and Richtsmeier, J. T. 2021 CRC Press.

2 Building Bones: Bone Formation and Development in Anthropology. Eds. Percival, C. J. and Richtsmeier, J. T. 2017 Cambridge University Press.

Teaching Experience

2023-present	Member of graduate student PhD committee, Megan F. Veltri, PhD candidate.
2014-present	Supervised post-doctoral scholars, graduate and undergraduate students, and technicians in Prof. Richtsmeier' lab; tutored them molecular and histological techniques.
2014-2018	Member of graduate student PhD committee, Kevin Flaherty, PhD.
2014-2016	Member of graduate student PhD committee, Bishoy Hanna, PhD.
2010-2013	Member of graduate student PhD committee, Christopher J. Percival, PhD.
2006-2008	Member of graduate student PhD committee, Samuel Sholtis, PhD.
2001-2013	Supervised undergraduate and graduate students in Prof. Weiss' lab; tutored them in molecular techniques and concepts.
1997-2000	Current topics of molecular biology and the human genome sequencing for master course students.
1997-2001	Molecular biology laboratory experiments for master course students.
1995-2000	Current topics of molecular biology and medicine for undergraduate students.
1995-2000	Molecular biology laboratory courses for undergraduate students.

Professional Associations

2022	American Association of Anatomy
2022	Society for Craniofacial Genetics and Developmental Biology
2007	Society for Integrative and Comparative Biology
2004	Society for Molecular Biology and Evolution
1995	Human Genome Organisation (HUGO)
1987	Japanese Society of Molecular Biology