

研究業績リスト

I. 原著論文 (若松は下線、責任著者の場合は下線二重線)

- (1) Sawai, S., Kato, K., Wakamatsu, Y., Kondoh, H. Organization and expression of the chicken N-myc gene. *Mol. Cell. Biol.* 10, 2017-2026 (1990)
- (2) Kato, K., Kanamori, A., Wakamatsu, Y., Sawai, S., Kondoh, H. Tissue distribution of N-myc expression in the early organogenesis period of the mouse embryo. *Dev. Growth Differ.* 33, 29-36 (1991)
- (3) Wakamatsu, Y., Kondoh, H. Conditions for detection of embryonic N-myc Expression by in situ hybridization. *Acta Histochem. Cytochem.* 23, 367-374 (1991)
- (4) Avraham, K. B., Cho, B. C., Gilbert, D. et al. Murine chromosomal location of four classIII POU transcription factors. *Genomics* 18, 131-133 (1993)
- (5) Goto, J., Miyabayashi, T., Wakamatsu, Y., Takahashi, N., Muramatsu, M. Organization and expression of mouse Hox3 cluster genes. *Mol. Gene Gen.* 239, 41-48 (1993)
- (6) Tomotsune, D., Shoji, H., Wakamatsu, Y., Kondoh, H., Takahashi, N. A mouse homologue of the Drosophila tumor-suppressor gene *l(2)gl* controlled by Hox-C8 in vivo. *Nature* 365, 69-72 (1993)
- (7) Sawai, S., Shimono, A., Wakamatsu, Y., Palmes, C., Hanaoka, K., Kondoh, H. Defects of embryonic organogenesis resulting from targeted disruption of the N-myc gene in the mouse. *Development* 117, 1445-1455 (1993)
- (8) Wakamatsu, Y., Watanabe, Y., Shimono, A., Kondoh, H. Transition of localization of the N-myc protein from nucleus to cytoplasm in differentiating neurons. *Neuron* 10, 1-9 (1993)
- (9) Shoji, H., Ito, T., Wakamatsu, Y., Hayasaka, N., Osaki, K., Oyanagi, M., Kominami, R., Kondoh, H., Takahashi, N. Regionalized expression of the Dbx family homeobox genes in the embryonic CNS of the mouse. *Mech. Dev.* 56, 25-39 (1996)
- (10) Wakamatsu, Y., Watanabe, Y., Nakamura, H., Kondoh, H. Regulation of the neural crest cell fate by N-myc: promotion of ventral migration and neuronal differentiation. *Development* 124, 1953-1962 (1997)
- (11) Wakamatsu, Y., Weston, J. A. Sequential expression and role of Hu RNA-binding proteins in neurogenesis. *Development* 124, 3449-3460 (1997)
- (12) Wakamatsu, Y., Mochii, M., Vogel, K. S., Weston, J. A. Avian neural crest-derived neurogenic precursors undergo apoptosis on the lateral migration pathway. *Development* 125, 4205-4213 (1998)
- (13) Wakamatsu, Y., Maynard, T. M., Jones, S. U., Weston, J. A. NUMB localizes in the basal cortex of mitotic avian neuroepithelial cells and modulates neuronal differentiation by binding to NOTCH-1. *Neuron* 23, 71-81 (1999)

- (14) Wakamatsu, Y., Maynard, T. M., Weston, J. A. Fate determination of neural crest cells by NOTCH-mediated lateral inhibition and asymmetrical cell division during gangliogenesis. *Development* 127, 2811-2821 (2000)
- (15) Maynard, T. M., Wakamatsu, Y., Weston, J. A. Cell interactions within nascent neural crest cell populations transiently promote death of neurogenic precursors. *Development* 127, 4561-4572 (2000)
- (16) Endo, Y., Osumi, N., Wakamatsu, Y. Bimodal functions of Notch-mediated signaling are involved in neural crest formation during avian ectoderm development. *Development* 129, 863-873 (2002)
- (17) Endo, Y., Osumi, N., Wakamatsu, Y. Deltex/Dtx mediates NOTCH signaling in regulating Bmp4 expression for cranial neural crest formation during avian development. *Dev. Growth Differ.* 45, 241-248 (2003)
- (18) Wakamatsu, Y., Endo, Y., Osumi, N., Weston, J. A. Multiple roles of Sox2, an HMG-box transcription factor in avian neural crest development. *Dev. Dyn.* 229, 74-86 (2004)
- (19) Wakamatsu, Y., Osumi, N., Weston, J. A. Expression of a novel secreted factor, Seraf indicates an early segregation of Schwann cell precursors from neural crest during avian development. *Dev. Biol.* 268, 162-173 (2004)
- (20) Matsuda, Y., Wakamatsu, Y., Kohyama, J., Okano, H., Fukuda, K., Yasugi, S. Notch signaling functions as a binary switch for the determination of glandular and luminal fates of endodermal epithelium during chicken stomach development. *Development* 132, 2783-2793 (2005)
- (21) Sakai, D., Tanaka, Y., Endo, Y., Osumi, N., Okamoto, H., Wakamatsu, Y. Regulation of Slug transcription in embryonic ectoderm by beta-catenin-Lef/Tcf and BMP-Smad signaling. *Dev. Growth Differ.* 47, 471-482 (2005)
- (22) Tomita, Y., Matsumura, K., Wakamatsu, Y. et al. Cardiac neural crest cells as dormant multipotential stem cells in the mammalian heart. *J. Cell Biol.* 170, 1135-1146 (2005)
- (23) Sakai, D., Suzuki, T., Osumi, N., Wakamatsu, Y. Cooperative action of Sox9, Snail2, and PKA signaling in early neural crest development. *Development* 133, 1323-1333 (2006)
- (24) Suzuki, T., Sakai, D., Osumi, N., Wada, H., Wakamatsu, Y. Sox genes regulate *type 2 Collagen* expression in avian neural crest cells. *Dev. Growth Differ.* 48, 477-486 (2006)
- (25) Wakamatsu, Y., Nakamura, N., Lee, J. A., Cole, G. J., Osumi, N. Translin, a nestin-like intermediate filament protein, mediates cortical localization and lateral transport of Numb in mitotic avian neuroepithelial cells. *Development* 134, 2425-2433 (2007)
- (26) Wakamatsu, Y. Overlapped and differential expression of PKA-inhibitor isoforms during avian organogenesis period. *Dev. Growth Differ.* 51, 707-714 (2009)
- (27) Nonomura, K., Takahashi, M., Wakamatsu, Y., Takano-Yamamoto, T., Osumi, N.

- Dynamic expression of Six family genes in the dental mesenchyme and the epithelial ameloblast stem/progenitor cells during murine tooth development. *J Anatomy*, 216, 80-91 (2009)
- (28) Suzuki, T., Osumi, N., Wakamatsu, Y. Stabilization of ATF4 protein is required for the regulation of epithelial-mesenchymal transition of avian neural crest. *Dev. Biol.* 344, 658-668 (2010)
- (29) Wakamatsu, Y., Sakai, D., Suzuki, T., Osumi, N. FilaminB is required for the directed localization of cell-cell adhesion molecules in embryonic epithelial development. *Dev. Dyn.* 240, 1639-1649 (2011)
- (30) Noro, M., Yuguchi, H., Tsuihiji, T., Yonei-Tamura, S., Yokoyama, H., Wakamatsu, Y., Tamura, K. Role of paraxial mesoderm in limb/flank regionalization of the trunk lateral plate. *Dev. Dyn.* 240, 1639-1649 (2011)
- (31) Wakamatsu, Y. Mutual repression between Pax3 and Pax6 is involved in the positioning of ophthalmic trigeminal placode in avian embryo. *Dev. Growth Differ.* 53, 994-1003 (2011)
- (32) Okada, H., Suematsu, M., Kanno, T., Tamamura, R., Kuyama, K., Murakami, H., Kato, T., Wakamatsu, Y., Suzuki, K. Raman spectroscopy of ghost cells in calcifying cystic odontogenic tumor. *J. Hard Tissue Biol.* 22, 489-492 (2013)
- (33) Okada, H., Suemitsu, M., Kanno, T., Tamamura, R., Kuyama, K., Murakami, H., Kato, T., Wakamatsu, Y., Suzuki, K. Morphological Features of the Posterior Lingual Glands in the Gray Short-Tailed Opossums (*Monodelphis domestica*). *J. Hard Tissue Biol.* 22, 489-492 (2013)
- (34) Okada, H., Suemitsu, M., Kanno, T., Tamamura, R., Nakada, H., Sasaki, Y., Kaneda, T., Endoh, M., Wakamatsu, Y., Suzuki, K. Histological Features of the Submandibular Glands in the Gray Short-Tailed Opossums (*Monodelphis domestica*).
- (35) Hatakeyama, J., Wakamatsu, Y., Nagafuchi, A., Kageyama, R., Shigemoto, R., Shimamura, K. Cadherin based adhesions in the apical endfoot are required for active Notch signaling to control neurogenesis in vertebrates. *Development* 141, 1671-1682 (2014)
- (36) Wakamatsu, Y., Nomura, T., Osumi, N., Suzuki, K. Comparative gene expression analyses reveal heterochrony for Sox9 expression in the cranial neural crest during marsupial development. *Evol. Dev.* 16, 197-206 (2014)
- (37) Shida, H., Mende, M., Takano-Yamamoto, T., Osumi, N., Streit, A., Wakamatsu, Y. Otic placode cell specification and proliferation are regulated by Notch signaling in avian development. *Dev. Dyn.* 244, 839-851 (2015)
- (38) Suzuki, T., Osumi, N., Wakamatsu, Y. Identification of neural crest-specific enhancer of Seraf gene in avian peripheral nervous system development. *Biochem. Biophys. Res. Commun.* 467, 1103-1109 (2015)
- (39) Shigetani, Y., Wakamatsu, Y., Tachibana, T., Okabe, M. Conversion of neural plate explants to pre-placodal ectoderm-like tissue in vitro. *Biochem. Biophys. Res. Commun.* 477, 807-813, (2016)
- (40) Nomura, T., Ohtaka-Maruyama, C., Yamashita, W., Wakamatsu, Y., Murakami, Y.,

- Calegari, F., Suzuki, K., Gotoh, H., Ono, K. The evolution of basal progenitors in the developing non-mammalian brain. *Development* 143, 66-74 (2016)
- (41) Wakamatsu, Y., Suzuki, K. Sequence alteration in the enhancer contributes to the heterochronic Sox9 expression in marsupial cranial neural crest. *Develop. Biol.* 456, 31-39 (2019)
- (42) Wakamatsu, Y., Egawa, S., Terashita, Y., Kawasaki, H., Tamura, K., Suzuki, K. Homeobox code model of heterodont tooth in mammals revised. *Scientific Reports* 12865 (2019).

II. 総説

(英文)

- (1) Wakamatsu, Y. Understanding glial differentiation in vertebrate nervous system. *Tohoku J. Exp. Med.* 203, 233-240 (2004)
- (2) Sakai, D., Wakamatsu, Y. Regulatory mechanisms for neural crest formation. *Cells Tissues Organs* 179, 24-35 (2005)
- (3) Wakamatsu, Y., Uchikawa, M. The many faces of Sox2 function in neural crest development. *Dev. Growth. Differ.* 63, 93-99 (2021)

(和文)

- (1) 若松義雄、近藤寿人: N-myc発現が制御する神経冠からの神経分化. 実験医学増刊「発生・神経研究の最前線'96-'97」14, 141-146 (1996)
- (2) 近藤寿人、若松義雄、下野明彦: N-myc遺伝子と神経冠細胞の分化. 最新医学 51, 18-24 (1996)
- (3) 若松義雄: リポフェクションによる鳥類神経冠細胞への遺伝子導入法. ニューロサイエンスラボマニュアル 3「神経生物学研究に必要な胚と個体の遺伝子操作法」シュプリンガー・フェアラーク東京 190-197 (1997)
- (4) 若松義雄: 道覚えし者には死を給わん-神経冠細胞の分化と移動経路や細胞死との関係. 細胞工学 16, 263-268 (1997)
- (5) 若松義雄: 脊椎動物の神経分化と非対称分裂:NumbによるNotchシグナル制御. 細胞工学 18, 1322-1323 (1999)
- (6) 若松義雄: 脊椎動物神経発生における非対称分裂. 実験医学増刊「発生・神経研究の最前線 2000」18, 9, 1270-1275 (2000)
- (7) 若松義雄、大隅典子: 神経堤細胞のボディプラン. 現代化学増刊号「ボディプランと器官形成」39, 28-38 (2001)
- (8) 若松義雄: 発生過程に見る神経堤細胞のふるまいとその制御. 実験医学増刊「脳神経研究のフロンティア」20, 715-722 (2002)
- (9) 中村典子、若松義雄、大隅典子: 中枢神経系の発生と発生異常. 小児外科 35, 292-299 (2003)
- (10) 若松義雄: 神経堤細胞分化. 羊土社わかる実験医学シリーズ「発生生物学がわかる」51-57 (2004)

- (11) 若松義雄: 神経系幹細胞の非対称分裂. 東北医学雑誌 116, 1, 47-49 (2004)
- (12) 酒井大輔、若松義雄: 神経堤形成のメカニズム. 蛋白質核酸酵素増刊「発生システムのダイナミクス」50, 6, 684-691 (2005)
- (13) 若松義雄: Notch シグナル伝達の仕組みと役割. 実験医学増刊「シグナル伝達研究 2005-'06」68-75 (2005)
- (14) 若松義雄: 神経堤細胞の EMT 過程の制御. 細胞工学特集「EMT 研究がいま面白い」332-336 (2008)
- (15) 若松義雄: 末梢神経系の発生、神経堤とプラコード. 化学同人「脳の発生学—ニューロンの誕生・分化・回路形成」157-169 (2013)
- (16) 若松義雄・鈴木久仁博: 有袋類の繁殖戦略と特徴的な発生様式. 生命の科学「特集 進化と発生からみた生命科学」66、217-221 (2015)

Ⅲ. 英文図書

- (1) Nakamura, N., Osumi, N., Wakamatsu, Y. Time-lapse observation of neural epithelium cell behavior in slice culture. Bionanotechnology Based Future Medical Engineering Proceedings of the Tohoku University 21st Century Center of Excellence Programme, 145-150 (2007)
- (2) Suzuki, T., Sakai, D., Osumi, N., Wakamatsu, Y. Expression of Sox9-interacting protein SC35/sfrs2 in avian embryos. Bionanotechnology Based Future Medical Engineering Proceedings of the Tohoku University 21st Century Center of Excellence Programme, 199-202 (2007)

Ⅳ. 国際学会招待講演

- (1) Wakamatsu, Y., Maynard, T. M., Weston, J. A. Generation of neurons and glia from neural crest cells of avian embryo. 14th International Congress of developmental Biology. Kyoto, Japan (2001)
- (2) Wakamatsu, Y. Multiple signal inputs for proper neural crest formation. “The Neural Crest: New perspectives on lineage and morphogenesis” Oregon, USA (2003)
- (3) Wakamatsu, Y., Endo, Y., Sakai, D., Osumi, N. Regulation of neural crest formation by Sox2, Slug and BMP4. “Boden International EMT Meeting” Port Douglas, Australia (2003)
- (4) Wakamatsu, Y. Modulation of neural crest induction and EMT by PKA signaling. “New Perspectives in Neural Crest Development” Fondation des Treilles, France (2006)
- (5) Wakamatsu, Y. Regulatory mechanisms for neural crest EMT. “UTMDACC-CDB Joint Symposium on: Vertebrate Development & Organogenesis” Houston, USA (2008)
- (6) Wakamatsu, Y. Regulatory mechanisms for neural crest EMT. “San Francisco-Japan Joint Meeting on Vertebrate Organogenesis” San Francisco, USA (2008)

(7) Shida, H., Osumi, N., Wakamatsu, Y. Involvement of Notch-mediated lateral inhibition and subsequent planar cell migration of Delta1-expressing cells in avian otic placode formation. “Chick7, The 7th International Chick Meeting” Nagoya, Japan (2012)

V. その他の執筆活動

International Neuroinformatics Coordinating Faculty ネットサイト「脳科学事典」の「骨形成因子」、「上皮成長因子」、「毛様体神経栄養因子」、「グリア由来神経栄養因子」、「numb」の用語解説執筆。

東京化学同人「生化学事典」第4版の「Notch」の用語解説執筆。