

Opisthobranch Newsletter

October, 1996, 22(10):35

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EDITOR'S NOTES: miranda@oz.net

Thanks to Wes Farmer, Julie Marshall, Dave Behrens, Peter Wirtz, Sandra Millen, Chuck Narad, Jim Lance, Bob Bolland, Gary McDonald and Cynthia Trowbridge for contributions this month.

The search engine has been reworked by Mark Rushing and is better than great. You may search through the 10,000 opisthobranch citations and taxonomic file, systematic file plus Gary McDonald's nudibranchs in Zoological Record and nudibranch systematic reference.

I missed the first period in Julie Marshall's e-mail address – see below.

I need the http sites for color photos on the Internet (branches). Please send me the web site addresses so that I can link to them. I also need updates to the address list.

FIELD NOTES:

From James R. Lance: *Alderia modesta* (Løven, 1844) is a common species (depending upon the questionable success of its food substrate in southern California). The algal food substrate, of course, is the Xanthophyte – *Vaucheria*. The food source is not abundant in either southern California nor down the Baja Peninsula. Still we found both *Vaucheria* and *Alderia* there. The species itself *Alderia modesta* is poecilogonous at least here in southern California.

PERSONAL NOTES:

From Cynthia Trowbridge: In terms of news, this week I will be moving to Scotland for a year to work with Chris Todd at Univ. St. Andrews. My new address will be at Gatty Marine Laboratory,

My email at Oregon State Univ. (trowbric@bcc.orst.edu) will continue for another 3 years as I have a faculty appointment in the Zoology Department.

Other news, I just got back from taking the Molecular Population Biology course at Friday Harbor. I spent several weeks extracting DNA from various ascoglossans (=sacoglossans), using PCR to amplify specific mitochondrial and nuclear genes, and getting some preliminary sequences. I would be interested in corresponding with other opisthobranch workers involved in this type of research.

From Bob Bolland:

bollandr@emh.kadena.af.mil Haven't got much for your newsletter, but, I've been heavily

invested in setting up an Okinawan Opisthobranch home page ("Okinawa Slug Site"), and have it on line at <http://www.imicom.or.jp/~bolland> I've recently bought the Nikon LS-1000 slide digitizer and I'm in the process of converting 'branch 2x2s into digital format. I currently have (roughly) 50 families, 120 genera, 215 species, and 75+ unknowns. The majority of these have been tentatively identified by Terry Gosliner.

I'll try to get some info to you in re Okinawa Opisthobranchs in the upcoming months.

From James R. Lance: Thanks for reviving the ON. Since inception (Vol. 1, No. 1, page 1, July 1, 1969) the publication has undergone change – as have the subscribers and readers.

From Chuck Narad: narad@nudibranch.asd.sgi.com I'm an opisthobranch freak, strictly amateur. I just got back from Milne Bay in P.N.G. and shot over 40 species of nudibranchs and flatworms in just 10 days!

Dave Mulliner is doing better but still has a lot of recovery to do. Drop him a note.

INFORMATION EXCHANGE:

The Scripps Institution of Oceanography has recently published a catalog – Benthic Invertebrate Collections of the Scripps Institution of Oceanography – MOLLUSCA. (Opisthobranch holdings pp. 97-101). Qualified people can obtain information from: Spencer R. Luke, Scripps Institution of Oceanography, University of California, La Jolla, CA 92093-0206. [ed. - If someone can get me an electronic copy of the opisthobranch pages I will look at publishing them or putting them on the web.]

From Albert Arking: arking@aa.gsfc.nasa.gov Hi, I was wondering if you could tell me who would know what *Chromodoris bullocki* specifically eats? Thanks for your time.

From Sandra Millen: The new fast search of taxonomy and bibliography is indeed fantastic and I am absolutely delighted. Thanks to all of you who were involved in its conception.

I would like to propose a Translations available/wanted section perhaps as an addition to the bibliography. This would save duplication of effort for those of us who have had papers translated from various languages. We could offer exchange services as well (eg. I'll do a German to English for you if you do a Russian to English for me, OR desperately needed: someone to translate an article from Japanese to French, will trade my first born son).

To kick this off, I have the following articles which have been translated from Russian (the last three were passed on to me courtesy of Michael Schroedl). I would be happy to disseminate them to those who are interested.

Roginskaya, E. S. 1971. *Arctadalaria septentrionalis* from the Laptev Sea. Zoologicheskij Zhurnal 50(8).
Martynov, A. 1994a Corambidae 1. Systematics. Z.Z. 73(10)
Martynov, A. 1994b Corambidae 2. The Origin. Z.Z. 73(11).

Baranets & Minichev 1994. Evolution of the mantle complex in nudibranchs. Z.Z. 73(11).

CORRECTIONS:

Peter Wirtz writes: Corrections to my book on the marine invertebrates of Madeira, the Canary Islands, and the Azores (Wirtz, Peter 1995. Unterwasserfuhrer Madeira Kanaren Azoren Niedere Tiere. S. Nagelschmid Verlag, Stuttgart, 247p.): The species called *Pleurobranchus reticulatus* is actually an undescribed species of *Pleurobranchus*. The species called *Roboastra europaea* actually is an undescribed species probably of the genus *Tambja*. *Dendrodoris* n.sp. (page 181) has now been described as *D. herytra* by Valdes et al. The species called *Discodoris fragilis* is *Discodoris confusa* (the Atlantic species, *fragilis* being an Indopacific one). Thanks to Lucas Cervera for pointing these things out to me.

From Wes Farmer: "*Cerberilla pungoarena* Collier and Farmer, 1964 *Cerberilla pungoarena* Collier & Farmer, 1964 was originally recorded from Puerto Refugio, Isla Angel de la Guarda in the Gulf of California, Mexico. The description of that animal has smooth rhinophores not perfoliate (personal communication with Terry Gosliner checking the holotype). If you have a copy of my book 1980 SEA-SLUG GASTROPODS on page 48 please correct the Rhinophores to read nonperfoliate or smooth. For the original description in: Transactions of the San Diego Society of Natural History Volume 13, No. 19, page 391 please correct 8th paragraph top line ...are are NOT perfoliate. This dorsal view of the slug is in addition to the anterior view in Plate 6 page 390. This genus and species in my opinion is the same species illustrated as *Cerberilla* sp. from San Diego, California." from the Slug Site.

BIBLIOGRAPHY:

- Abe, M.; Klein, M.; Steel, D.J.; Thekkuvettill, A.; Shapiro, E.; Schwartz, J.H.; Feinmark, S.J. 1995. Stereochemistry of the *Aplysia* neuronal 12-lipoxygenase: Specific potentiation of FMRFamide action by 12(S)-HPETE. Brain Research 683(2): 200-208. [*Aplysia californica*]
- Akaike, N. 1995. Concentration clamp technique. [*In*] Boulton, A. A., G. B. Baker and W. Walz (Ed.). Neuromethods, 26. Patch-clamp applications and protocols. xvi+316p. Humana Press Inc.: Totowa, New Jersey, USA. ISBN 0-89603-311-2. 141-154. [*Aplysia*]
- Aloyz, R.S.; Desgroseillers, L. 1995. Processing of the L5-67 precursor peptide and characterization of LUQIN in the LUQ neurons of *Aplysia californica*. Peptides (Tarrytown) 16(2): 331-338.
- Ambron, R.T.; Dulin, M.F.; Zhang, X.-P.; Schmied, R.; Walters, E.T. 1995. Axoplasm enriched in a protein mobilized by nerve injury induces memory-like alterations in *Aplysia* neurons. Journal of Neuroscience 15(5 PART 1): 3440-3446.
- Avila, C.; Tamse, C.T.; Kuzirian, A.M. 1996-02. Induction Of Metamorphosis In *Hermisenda crassicornis* Larvae (Mollusca, Nudibranchia) By Gaba, Choline And Serotonin. Invertebrate Reproduction & Development, 29(2):127-141.
- Bailey, C.H. 1995. Molecular and structural mechanisms underlying long-term memory. [*In*] Gazzaniga, M.S. (Ed.). The cognitive neurosciences. xiv+1446p. MIT Press: Cambridge, Massachusetts, USA; London, England, UK. ISBN 0-262-07157-6. 19-36. [*Aplysia*]

Opisthobranch Newsletter

October, 1996, Volume 22(10):36

- Baldwin, T.J.; Fazeli, M.S.; Doherty, P.; Walsh, F.S. 1996.** Elucidation of the molecular actions of NCAM and structurally related cell adhesion molecules. *Journal of Cellular Biochemistry* 61(4): 502-513. [*Aplysia*]
- Bavestrello, G.; Cerrano, C.; Cattaneo-Vietti, Riccardo; Sara, M. 1996.** Relations between *Eudendrium glomeratum* (Cnidaria, Hydromedusae) and its associated vagile fauna. *Scientia Marina*, v.60, n.1, (1996): 137-143. (N.)
- Bernheim, S.M.; Mayeri, E. 1995.** Complex behavior induced by egg-laying hormone in *Aplysia*. *Journal of Comparative Physiology A Sensory Neural and Behavioral Physiology* 176(1): 131-136.
- Bito, H.; Deisseroth, K.; Tsien, R.W. 1995.** Signaling pathways regulating nuclear CREB phosphorylation in hippocampal neurons. *Society for Neuroscience Abstracts* 21(1-3): 262. [*Aplysia*]
- Bowtell, R.W.; Peters, A.; Sharp, J.C.; Mansfield, P.; Hsu, E.W.; Aiken, N.; Horsman, A.; Blackband, S.J. 1995.** NMR microscopy of single neurons using spin echo and line narrowed 2DFT imaging. *Magnetic Resonance in Medicine* 33(6): 790-794. [*Aplysia californica*]
- Brezina, V.; Weiss, K.R. 1995.** Ca²⁺-activated K current in the ARC muscle of *Aplysia*. *Journal of Neurophysiology* (Bethesda) 73(3): 993-1004. [*Aplysia californica*]
- Brezina, V.; Weiss, K.R. 1995.** Extracellular Ca²⁺ entry through voltage-gated CA channels, ACH-gated channels, and Ca²⁺-induced release of intracellular Ca²⁺ all contribute to contractions of a molluscan smooth muscle. *Biophysical Journal* 68(2 PART 2): A277. [*Aplysia californica*]
- Brezina, V.; Weiss, K.R. 1995.** Intracellular Ca²⁺ stores in the arc muscle of *Aplysia*: A key source of Ca²⁺ for currents and contractions. *Society for Neuroscience Abstracts* 21(1-3): 427.
- Byrne, J.H. 1995.** Neuronal and network determinants of simple and higher-order features of associative learning: Experimental and modeling approaches. [*In:*] **Elsner, N. and R. Menzel (Ed.)**. Learning and memory; 23rd Goettingen Neurobiology Conference 1995, Volume I, Goettingen, Germany, March 24-26, 1995. 446p. Georg Thieme Verlag: Stuttgart, Germany; Thieme Medical Publishers, Inc.: New York, New York, USA. ISBN 3-13-101881-X. 66. [*Aplysia*]
- Byrne, J.H.; Canavier, C.C.; Lechner, H.; Clark, J.W.; Baxter, D.A. 1994.** Role of nonlinear dynamical properties of a modelled bursting neuron in information processing and storage. *Netherlands Journal of Zoology* 44(3-4): 339-356. [*Aplysia*]
- Carew, T.J. 1995.** A comparison of the mechanistic relationships between development and learning in *Aplysia*. [*In:*] **Elsner, N. and R. Menzel (Ed.)**. Learning and memory; 23rd Goettingen Neurobiology Conference 1995, Volume I, Goettingen, Germany, March 24-26, 1995. 446p. Georg Thieme Verlag: Stuttgart, Germany; Thieme Medical Publishers, Inc.: New York, New York, USA. ISBN 3-13-101881-X. 83-87, 89-90, 92-93, 95-97, 99-103.
- Carpenter, D.O.; Kemenes, G.; Elekes, K.; Leung, M.; Stefano, G.; S.-Rozsa, K.; Salanki, J. 1995.** Opioid peptides in the nervous system of *Aplysia*: A combined biochemical, immunocytochemical, and electrophysiological study. *Cellular and Molecular Neurobiology* 15(2): 239-256. [*Aplysia californica*]
- Carpenter, D.O.; King, W.M.; McCreery, M.J. 1995.** The Role Of Glutamate Reuptake In Regulation Of Glutamate Responses In *Aplysia* Neurons. *Acta Biologica Hungarica*, 46(2-4):363-373.
- Cattaneo-Vietti, Riccardo; Chemello, Renato; Giannuzzi-Savelli, Riccardo (Eds.) 1990-12.** Atlas of Mediterranean Nudibranchs. (Atlante dei Nudibranchi del Mediterraneo). La Conchiglia p.1-264, 14pls., 108 color ill.; 180 figs.; 210x300mm hardcover, dust jacket. [Italian & English; forward Philippe Bouchet; Excellent color photos by many contributors; significant glossary & bibliography; More than 100 species illustrated; \$55 US + post; an excellent book]
- Cervera, J.I.; Cattaneovietti, R.; Edmunds, M. 1996-07.** A New Species Of Notaspidean Of The Genus *Pleurobranchus* Cuvier, 1804 (Gastropoda, Opisthobranchia) From The Cape Verde Archipelago. *Bulletin Of Marine Science* 59(1):150-157.
- Chain, D.G.; Hegde, A.N.; Yamamoto, N.; Liu-Marsh, B.; Schwartz, J.H. 1995.** Neuronal specializations of the ubiquitin system in *Aplysia*: Persistent activation of cAMP-dependent protein kinase. *Journal of Neurochemistry* 64(SUPPL. 1): S8.
- Chamberland, H. 1995.** Gold labeling methods for the ultrastructural localization of host wall and pathogen components. [*In:*] **Petrini, O. and G. B. Ouellette (Ed.)**. Host wall alterations by parasitic fungi; Sixth International Congress of Plant Pathology, Montreal, Quebec, Canada, 1993. vii+159p. American Phytopathological Society (APS) Press: St. Paul, Minnesota, USA. ISBN 0-89054-168-X. 1-11. [*Aplysia depilans*]
- Chay, T.R. 1995.** Electrical bursting and Ca²⁺ oscillations in *Aplysia* neurons: The role of two types of Ca²⁺ channels and cellular Ca²⁺ stores. *Society for Neuroscience Abstracts* 21(1-3): 64.
- Chester, C.M. 1994.** The effect of adult nutrition on the reproduction and development of the estuarine nudibranch, *Tenellia adpersa* (Nordmann, 1845). *Journal of Experimental Marine Biology and Ecology*, 198(1):113-130.
- Cibelli, G.; Ghirardi, M.; Onofri, F.; Benfenati, F.; Montarolo, P.G.; Vitiello, F. 1996.** Changes in distribution of mollusk synapsin-like molecules following the formation of synaptic contacts in vitro. *European Journal of Cell Biology* 69(SUPPL.):114. [*Aplysia californica*]
- Cornille, F.; Deloye, F.; Fournie-Zaluski, M.-C.; Roques, B.P.; Poulain, B. 1995.** Inhibition of neurotransmitter release by synthetic proline-rich peptides shows that the N-terminal domain of vesicle-associated membrane protein-synaptobrevin is critical for neuro-exocytosis. *Journal of Biological Chemistry* 270(28): 16826-16832. [*Aplysia californica*]
- Cropper E.C.; Evans C.G; Rosen S.C. 1996-08.** Multiple Mechanisms For Peripheral Activation Of The Peptide-Containing Radula Mechanoafferent Neurons B21 And B22 Of *Aplysia*. *Journal Of Neurophysiology*, 76(2):1344-1351.
- Cropper, E.C.; Evans, C.; Miller, M.W.; Rosen, S.C. 1995.** Multiple mechanisms for peripheral activation of the peptide-containing sensory neurons B21 and B22. *Society for Neuroscience Abstracts* 21(1-3): 149. [*Aplysia*]
- Cushman, S.J.; Baxter, D.A.; Byrne, J.H. 1995.** Central representation of satiation of feeding behavior in *Aplysia*. *Society for Neuroscience Abstracts* 21(1-3): 151.
- Dash, P.K.; Moore, A.N. 1996.** Characterization and phosphorylation of CREB-like proteins in *Aplysia* central nervous system. *Molecular Brain Research* 39(1-2):43-51. [*Aplysia californica*]
- De Riccardis, F.; Spinella, A.; Izzo, I.; Giordano, A.; Sodano, G. 1995.** Synthesis of (17R)-17-methylincis-terol, a highly degraded marine steroid. *Tetrahedron Letters* 36(24):4303-4306. [*Aplysia*]
- Deisseroth, K.; Bito, H.; Tsien, R.W. 1995.** Rapid nuclear CREB phosphorylation during both LTD- and LTP-inducing patterns of synaptic activity. *Society for Neuroscience Abstracts* 21(1-3):262. [*Aplysia*]
- Desgroseillers, L.; Bawab, W.; Aloyz, R.A.; Crine, P. 1994.** Characterization of membrane-bound neuro-peptide-degrading activities in *Aplysia californica*. *Netherlands Journal of Zoology* 44(3-4): 451-462.
- Doherty, P.; Fazeli, M.S.; Walsh, F.S. 1995.** The neural cell adhesion molecule and synaptic plasticity. *Journal of Neurobiology* 26(3):437-446. [*Aplysia*]
- Dyer, J.R.; Sossin, W.S.; Klein, M. 1996-09.** Cloning And Characterization Of Aplycalcin And *Aplysia* Neurocalcin, Two New Members Of The Calmodulin Superfamily Of Small Calcium-Binding Proteins. *Journal Of Neurochemistry* 67(3):932-942.
- Endo, S.; Critz, S.D.; Byrne, J.H.; Shenolikar, S. 1995.** Protein phosphatase-1 regulates outward K⁺ currents in sensory neurons of *Aplysia californica*. *Journal of Neurochemistry* 64(4):1833-1840.
- Evans C.G.; Rosen S.; Kupfermann I.; Weiss K.R.; and others. 1996.** Characterization Of A Radula Opener Neuromuscular System In *Aplysia*. *Journal Of Neurophysiology*, 1996 Aug, V76 N2:1267-1281.
- Evans, C.G.; Rosen, S.C.; Cropper, E.C. 1995.** A physiological role for the sensory neurons B21 and B22 in *Aplysia*. *Society for Neuroscience Abstracts* 21(1-3):149.
- Ewing, A.G. 1995.** Voltammetric and amperometric probes for single-cell analysis. [*In:*] **Boulton, A.A.; Baker, G.B.; Adams, R.N. (Eds.)**. *Neuromethods*, 27. Voltammetric methods in brain systems. xvi+349p. Humana Press Inc.: Totowa, New Jersey, USA. ISBN 0-89603-312-0. 1995. 269-304. [*Aplysia californica*]
- Fainzilber, M.; Gordon, D.; Zlotkin, E. 1994.** Molluscivorous *Conus* toxins as probes for voltage and ligand gated ion channels in molluscs. *Netherlands Journal of Zoology* 44(3-4):486-494. [*Aplysia*]
- Fejtli, M.; Gyori, J.; Carpenter, D.O. 1994.** Mercuric(II) chloride modulates single-channel properties of carbachol-activated Cl⁻ channels in cultured neurons of *Aplysia californica*. *Cellular and Molecular Neurobiology* 14(6): 665-674.
- Filipovic, D.; Naumovic, N.; Konevic, B.; Ivetic, V.; Bajic, M.; Makletsova, M.G. 1994.** [Effects of homocarnosine on the neuronal activity in *Helix pomatia* and *Aplysia*]. *Uspekhi Fiziologicheskikh Nauk* 25(4): 104. [Russian]
- Fischer, T.M.; Carew, T.J. 1995.** Cutaneous Activation of the Inhibitory L30 Interneurons Provides a Mechanism for Regulating Adaptive Gain Control in the Siphon Withdrawal Reflex of *Aplysia*. *Journal of Neuroscience* 15(1 PART 2): 762-773.
- Fredman, S.M.; Storozhuk, M.V. 1994.** Synaptic plasticity in the cerebral ganglion of *Aplysia*. *Netherlands Journal of Zoology* 44(3-4):259-271.
- Fricker, L.D. 1995.** Methods for studying carboxypeptidase E. [*In:*] **Smith, A. I. (Ed.)**. *Methods in Neurosciences*, Vol. 23. Peptidases and neuropeptide processing. xvi+407p. Academic Press, Inc.: San Diego, California, USA; London, England, UK. ISBN 0-12-485293-9. 1995. 237-250. [*Aplysia*]
- Frost, W.N.; Kandel, E.R. 1995.** Structure of the network mediating siphon-elicited siphon withdrawal in *Aplysia*. *Journal of Neurophysiology* (Bethesda) 73(6):2413-2427. [*Aplysia californica*]
- Fryxell, K.B.; O'Donoghue, K.; Graeff, R.M.; Lee, H.C.; Branton, W.D. 1995.** Functional expression of soluble forms of human CD38 in *Escherichia coli* and *Pichia pastoris*. *Protein Expression and Purification* 6(3): 329-336. [*Aplysia*]
- Furukawa, Y.; Kim, H.N.; Kubo, T. 1995.** Up- and down-modulation of a cloned *Aplysia* K⁺ channel (AKv1.1a) by the activators of protein kinase C. *Zoological Science (Tokyo)* 12(1): 35-44.
- Gabbard, S.R.; Moran, W.M. 1995.** Effect of L-alanine and ouabain on membrane conductances and apical membrane in *Aplysia* intestine. *American Journal of Physiology* 268(4 PART 2):R1050-R1059. [*Aplysia californica*]
- Gardner, D.; Erde, S.M. 1995.** Criteria for neuronal identification yield universal neurophysiological data types. *Society for Neuroscience Abstracts* 21(1-3):146. [*Aplysia*]
- Gautel, M.; Morelli, M.A.C.; Pfuhl, M.; Motta, A.; Pastore, A. 1995.** A calmodulin-binding sequence in the C-terminus of human cardiac titin kinase. *European Journal of Biochemistry* 230(2): 752-759. [*Aplysia*]

Opisthobranch Newsletter

October, 1996, Volume 22(10):37

- Giardino, N.; Aloyz, R.; Zollinger, M.; Miller, M.W.; Desgroseillers, L. 1995. The L5-67 and LUQ-1 peptide precursors of *Aplysia californica*: Localization of immunoreactivity in the central nervous system and in peripheral tissues. Society for Neuroscience Abstracts 21(1-3):627.
- Glanzman, D.L. 1995. The cellular basis of classical conditioning in *Aplysia californica*: It's less simple than you think. Trends in Neurosciences 18(1):30-36. [*Aplysia californica*]
- Glanzman, D.L.; Lin, X.Y. 1994. The cellular basis of CS-US pairing efficacy for classical conditioning of *Aplysia's* withdrawal reflex: Potential contribution of a Hebbian mechanism. Netherlands Journal of Zoology 44(3-4):234-258.
- Goldberg, D.J.; Wu, D.-Y. 1995. Inhibition of formation of filopodia after axotomy by inhibitors of protein tyrosine kinases. Journal of Neurobiology 27(4):553-560. [*Aplysia californica*]
- Gonzalez, G.C.; Roger, I.; Gonzalez, E.; Martinez-Padron, M.; Moore, G.J.; Lukowiak, K. 1995. Angiotensinogen-like epitopes are present in the CNS of *Aplysia californica* and co-localize with urotensin I- and urotensin II-like immunoreactivities in the cerebral ganglia. Neuroreport 6(3):541-544. [*Aplysia californica*]
- Gosliner, Terrence M.; Behrens, David W.; Williams, Gary C. 1996. Coral Reef Animals of the Indo-Pacific. Sea Challengers, Monterey, California I-vi + 1-314, 1150+ color photos, figs., b&w photos, biblio, 8" x 10" quality paperback. [\$45 + post; 111 opisthobranchs illustrated; great format, color quality & binding]
- Graziani, Edmund I.; Andersen, Raymond J. 1996-05-15. Investigations of sesquiterpenoid biosynthesis by the dorid nudibranch *Acanthodoris nanaimoensis*. Journal of the American Chemical Society 118(19):4701 (2 pages).
- Gunstream, J.D.; Castro, G.A.; Walters, E.T. 1995. Retrograde transport of plasticity signals in *Aplysia* sensory neurons following axonal injury. Journal of Neuroscience 15(1 PART 1):439-448.
- Gyori, J.; Fejtl, M.; Carpenter, D.O.; Salanki, J. 1994. Effect of HgCl₂ on acetylcholine, carbachol, and glutamate currents of *Aplysia* neurons. Cellular and Molecular Neurobiology 14(6):653-664.
- Hasson, A.; Fainzilber, M.; Zlotkin, E.; Spira, M.E. 1995. Electrophysiological characterization of a novel conotoxin that blocks molluscan sodium channels. European Journal of Neuroscience 7(4):815-818. [*Aplysia*]
- Hasson, A.; Shon, K.-J.; Olivera, B.M.; Spira, M.E. 1995. Alterations of voltage-activated sodium current by a novel conotoxin from the venom of *Conus gloriamaris*. Journal of Neurophysiology (Bethesda) 73(3):1295-1302. [*Aplysia*]
- Herskovits, T.T.; Edwards, M.D.; Hamilton, M.G. 1995. The hemocyanin of the Californian black sea hare, *Aplysia vaccaria* Winkler. Comparative Biochemistry and Physiology B Comparative Biochemistry and Molecular Biology 110(3): 515-521.
- Homayouni, R.; Byrne, J.H.; Eskin, A. 1995. Dynamics of protein phosphorylation in sensory neurons of *Aplysia*. Journal of Neuroscience 15(1 PART 1):429-438.
- Hu, K.H.; Liu, E.; Dean, K.; Gingras, M.; Degraff, W.; Trun, N.J. 1996. Overproduction of three genes leads to camphor resistance and chromosome condensation in *Escherichia coli*. Genetics, v.143, n.4, (1996): 1521-1532. [*Aplysia californica*]
- Huang, C.C.; Huang, T.Y.; Ambron, R.T. 1995. Endogenous proteins of olfactory neurons use the retrograde transport-nuclear import pathway. Journal of Neurochemistry 65(SUPPL.): S186. [*Aplysia*]
- Hurwitz, I.; Morton, D.W.; Neustadter, D.; Chiel, H.J.; Susswein, A.J. 1995. The B31-B32 pattern initiators of *Aplysia* are active during protraction in biting, swallowing and rejection movements. Society for Neuroscience Abstracts 21(1-3):149.
- Iijima, R.; Kisugi, J.; Yamazaki, M. 1995. Antifungal activity of *Aplysianin* E, a cytotoxic protein of sea hare (*Aplysia kuroda*) eggs. Developmental and Comparative Immunology 19(1):13-19.
- Inageda, K.; Takahashi, K.; Tokita, K.-I.; Nishina, H.; Kanaho, Y.; Kukimoto, I.; Kontani, K.; Hoshino, S.-I.; Katada, T. 1995. Enzyme Properties of *Aplysia* ADP-Ribosyl Cyclase: Comparison with NAD Glycohydrolase of CD38 Antigen. Journal of Biochemistry (Tokyo) 117(1):125-131. [*Aplysia kuroda*]
- Jacklet, J.; Barnes, S.; Bulloch, A.; Lukowiak, K.; And Others. 1996-09. Rhythmic Activities Of Isolated And Clustered Pacemaker Neurons And Photoreceptors Of *Aplysia* Retina In Culture. Journal Of Neurobiology 31(1):16-28.
- Jacklet, J.W.; Gruhn, M. 1994. Nitric oxide as a putative transmitter in *Aplysia*: Neural circuits and membrane effects. Netherlands Journal of Zoology 44(3-4):524-534.
- Jimenez, B.; Arends, M.; Esteve, P.; Perona, R.; Sanchez, R.; Ramon Y Cajal, S.; Wylie, A.; Lacal, J.C. 1995. Induction of apoptosis in NIH3T3 cells after serum deprivation by overexpression of rho-p21, a GTPase protein of the ras superfamily. Oncogene 10(5):811-816. [*Aplysia*]
- Jonas, E.A.; Knox, R.J.; Connor, J.A.; Kaczmarek, L.K. 1995. Insulin causes release of intracellular Ca²⁺ in molluscan neurons from an IP₃-insensitive store. Society for Neuroscience Abstracts 21(1-3):507. [*Aplysia*]
- Kabotyanski, E.A.; Ziv, I.; Baxter, D.A.; Byrne, J.H. 1994. Experimental and computational analyses of a central pattern generator underlying aspects of feeding behaviour of *Aplysia*. Netherlands Journal of Zoology 44(3-4):357-373.
- Kao, W.-Y.; Hankeln, T.; Schmidt, E.R.; Bergtrom, G. 1995. Sequence and evolution of the gene for the monomeric globin I and its linkage to genes coding for dimeric globins in the insect *Chironomus thummi*. Journal of Molecular Evolution 40(4):354-361. [*Aplysia kuroda*]
- Keating, H.H.; Sahley, C.L. 1996. Localization of the myomodulin-like immunoreactivity in the leech CNS. Journal of Neurobiology 30(3):374-384. [*Aplysia*]
- Khurana, V.; Benjamin, J.; McCaman, R.E.; Ono, J.K. 1995. Measurement of ELH RNA in *Aplysia* bag cells and connectives using an internal RNA standard for quantitative reverse-transcription-polymerase chain reaction (RT-PCR) amplification. Society for Neuroscience Abstracts 21(1-3):626. [*Aplysia californica*]
- Kiger, L.; Stetzkowski-Marden, F.; Poyart, C.; Marden, M.C. 1995. Correlation of carbon monoxide association rates and the position of absorption band III in hemoproteins. European Journal of Biochemistry 228(3):665-668. [*Aplysia*]
- Kim, E.; Day, T.A.; Bennett, J.L.; Pax, R.A. 1995. Cloning and functional expression of a Shaker-related voltage-gated potassium channel gene from *Schistosoma mansoni* (Trematoda: Digenea). Parasitology 110(2):171-180. [*Aplysia*]
- Kiss, T.; Osipenko, O. 1994. Metal Ion-induced permeability changes in cell membranes: A minireview. Cellular and Molecular Neurobiology 14(6):781-789. [*Aplysia*]
- Knox, R.J.; Kaczmarek, L.K. 1995. Inhibitors of tyrosine kinase activity cause spike broadening and suppression of voltage-gated K⁺ currents. Biophysical Journal 68(2 PART 2):A47. [*Aplysia*]
- Komatsu, H.; Nogaya, J.; Ogli, K. 1994. Volatile anaesthetics as central nervous system excitants. Annals Academy of Medicine Singapore 23(6 SUPPL.):130-138. [*Aplysia*]
- Koumenis, C.; Nunez-Regueiro, M.; Raju, U.; Cook, R.; Eskin, A. 1995. Identification of Three Proteins in the Eye of *Aplysia*, Whose Synthesis Is Altered by Serotonin (5-HT): Possible involvement of these proteins in the ocular circadian system. Journal of Biological Chemistry 270(24):14619-14627. [*Aplysia californica*]
- Krontiris-Litowitz, J.; Budde, J.E. 1995. Small cardioactive peptide suppresses stimulation-induced tachycardia in *Aplysia californica*. FASEB Journal 9(4):A899.
- Kunkel, J.; Sanger, R.; Smith, P.J.S. 1994. Direct measurement of porter and pump mediated ion flow using a noninvasive vibrating ion-selective probe. Journal of General Physiology 104(6):30A. [*Aplysia*]
- Leci, E.; Brancaccio, A.; Cutruzzola, F.; Travaglini Allocatelli, C.; Tarricone, C.; Bolognesi, M.; Desideri, A.; Ascenzi, P. 1995. Formate binding to ferric wild type and mutant myoglobins thermodynamic and X-ray crystallographic study. FEBS Letters 357(3):227-229. [*Aplysia*]
- Libertini, A.; Meneghetti, F.; Panozzo, M. 1996-06. Spermatocyte Chromosomes And Genome Size In The Sacoglossan Slug *Stiliger felinus* (Hutton 1882) (Gastropoda, Opisthobranchia) From New Zealand. New Zealand Journal Of Marine And Freshwater Research 30(2):193-196.
- Linden, D.J. 1995. Long-term synaptic depression. [*In*] Cowan, W. M. (Ed.). Annual Review of Neuroscience, Vol. 18. ix+607p. Annual Reviews Inc.: Palo Alto, California, USA. ISBN 0-8243-2418-8. 319-357. [*Aplysia*]
- Martinez, E.; Ortea, J. 1995. *Aplysia juliana* Quoy and Gaimard, 1832 (Mollusca, Gastropoda): Proposed conservation of the specific name. Bulletin of Zoological Nomenclature 52(1):21-23. [*Aplysia sorex*]
- McIntosh, J.M.; Hasson, A.; Spira, M.E.; Gray, W.R.; Li, W.; Marsh, M.; Hillyard, D.R.; Olivera, B.M. 1995. A new family of conotoxins that blocks voltage-gated sodium channels. Journal of Biological Chemistry 270(28):16796-16802. [*Aplysia*]
- Medina, M.; Walsh, P.J. 1995. Molecular population genetics of the California sea hare (*Aplysia californica*) using single copy nuclear DNA markers. Journal of Cellular Biochemistry Supplement 19B: 341.
- Miller, Michael C. 1996. The dorid nudibranch genus *Jorunna* Bergh, 1876 (Gastropoda: Opisthobranchia) in New Zealand. Journal of Natural History, 30(7):1095-1109. [*Jorunna pantherina* New Record: *Jorunna: Kentrodoris: Rostanga: Jorunna ramicola* n.sp.; *Jorunna hartleyi: Jorunna evansi*]
- Moffett, S.B. 1995. Neural regeneration in gastropod molluscs. Progress in Neurobiology (Oxford) 46(2-3):289-330. [*Aplysia californica*]
- Morris, L.G.; Hooper, S.L. 1995. Dopamine (DA) unmasks a dependence of contraction size of pyloric dilator muscle cpv1b on prior activity. Society for Neuroscience Abstracts 21(1-3):153. [*Aplysia*]
- Mothet, J.P.; Fossier, P.; Tauc, L.; Baux, G. 1996. No decreases evoked quantal ACh release at a synapse of *Aplysia* by a mechanism independent of Ca²⁺ influx and protein kinase G. Journal of Physiology (Cambridge) 493(3):769-784. [*Aplysia californica*]
- Mothet, J.-P.; Fossier, P.; Tauc, L.; Baux, G. 1996. Opposite actions of nitric oxide on cholinergic synapses: Which pathways? Proceedings of the National Academy of Sciences of the United States of America, v.93, n.16, (1996): 8721-8726. [*Aplysia*]
- Nagle, G.T.; Garcia, A.T.; Gorham, E.L.; Knock, S.L.; Van Heumen, W.R.A.; Spijker, S.; Smit, A.B.; Geraerts, W.P.M.; Kurosky, A. 1995. Molecular cloning and cellular localization of a furin-like prohormone convertase from the atrial gland of *Aplysia*. DNA and Cell Biology 14(5):431-443. [*Aplysia californica*]
- Nagle, G.T.; Garcia, A.T.; Knock, S.L.; Gorham, E.; Kurosky, A. 1995. Characterization of cDNAs encoding *Aplysia californica* furin and PC2. Journal of Cellular Biochemistry Supplement 19B:247.
- Nagle, G.T.; Garcia, A.T.; Knock, S.L.; Gorham, E.L.; Van Heumen, W.R.A.; Kurosky, A. 1995. Molecular cloning, cDNA sequence, and localization of a prohormone convertase (PC2) from the *Aplysia* atrial gland. DNA and Cell Biology 14(2):145-154. [*Aplysia californica*]

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- Nagle, G.T.; Knock, S.L.; Van Heumen, W.R.A.; Kurosky, A. 1994.** Molluscan subtilisin-related endoproteases involved in the activation of prohormones and proproteins in the secretory pathway. *Netherlands Journal of Zoology* 44(3-4):439-450. [*Aplysia californica*]
- Nata, K.; Sugimoto, T.; Tohgo, A.; Takamura, T.; Noguchi, N.; Matsuoka, A.; Numakunai, T.; Shikama, K.; Yonekura, H.; Takasawa, S.; Okamoto, H. 1995.** The structure of the *Aplysia kurodai* gene encoding ADP-ribosyl cyclase, a second-messenger enzyme. *Gene (Amsterdam)* 158(2):213-218. [*Aplysia californica*]
- Nick, T.A.; McKay, S.E.; Kaczmarek, L.K.; Carew, T.J. 1995.** Outward currents of *Aplysia* bag cell neurons decrease with development of afterdischarge and with BDNF treatment. *Society for Neuroscience Abstracts* 21(1-3):535.
- Nolen, T.G.; Johnson, P.M.; Kicklighter, C.E.; Capo, T. 1995.** Ink secretion by the marine snail *Aplysia californica* enhances its ability to escape from a natural predator. *Journal of Comparative Physiology A Sensory Neural and Behavioral Physiology* 176(2):239-254.
- Okino, T.; Yoshimura, E.; Hirota, H.; Fusetani, N. 1996.** New antifouling sesquiterpenes from four nudibranchs of the family Phyllidiidae. *Tetrahedron*, 52(28): 9447-9454. [*Amphitrite*; *Phyllidia ocellata*; *Phyllidia varicosa*; *Phyllidiopsis krempfi*; *Phyllidiopsis pustulosa*]
- O'Leary, F.A.; Byrne, J.H.; Cleary, L.J. 1995.** Long-term structural remodeling in *Aplysia* sensory neurons requires de novo protein synthesis during a critical time period. *Journal Neuroscience* 15(5 PART 1):3519-3525.
- Papp, A.; Klee, M.R. 1995.** Alterations in the action potential of *Aplysia* neurons evoked by a phorbol ester are mediated by protein kinase C. *Brain Research* 684(1):107-111. [*Aplysia californica*]
- Peretz, B. 1994.** The modulatory effect of acetylcholinesterase on neuronal activity is dependent on age in *Aplysia*. *Netherlands Journal Zoology* 44(3-4):395-404.
- Phares, G.A.; Walent, J.H.; Niece, R.L.; Kumar, S.B.; Ericsson, L.H.; Walsh, K.A.; Lloyd, P.E. 1995.** Purification and sequence analysis of a novel peptide from the cerebral ganglion of *Aplysia*. *Society for Neuroscience Abstracts* 21(1-3):626.
- Plaut, I.; Borut, A.; Spira, M.E. 1995.** Growth and metamorphosis of *Aplysia* oculifera larvae in laboratory culture. *Marine Biology* 122(3):425-430.
- Price, D.A.; Greenberg, M.J. 1994.** Comparative aspects of FMRFamide gene organization in molluscs. *Netherlands Journal Zoology* 44(3-4):421-431. [*Aplysia*]
- Prince, J.S.; Coelho, L.; Moretti, M.; Cho, C.; Nolen, T. 1996.** The incorporation of R-phycoerythrin into vesicles of the ink gland of the sea slug, *Aplysia californica*. *Journal Phycology* 32(3 SUPPL.):39.
- Saito, S.-Y.; Watabe, S.; Ozaki, H.; Fusetani, N.; Yamada, K.; Karaki, H. 1995.** Novel inhibitors of actin polymerization, bistheoneline A and aplyronine A: Comparison with mycalolide B. *Japanese Journal of Pharmacology* 67(SUPPL. 1): 0021-5198. [*Aplysia kurodai*]
- Sasaki, K.; Matsumoto, M.; Takashima, K.; Fujita, R.; Kawasaki, S.; Kimura, S.; Sato, M. 1994.** Depressing effects of protein kinases A and C on the receptor-induced K⁺-current responses in the ganglion cells of *Aplysia*. *Netherlands Journal Zoology* 44(3-4):578-587.
- Satake, M.; Abe, S.; Araki, S.; Yamada, S.; Watanabe, Y. 1995.** Neurobiology of new glycosphingolipids. *Journal Neurochemistry* 65(Suppl.):S177. [*Aplysia kurodai*]
- Sawada, M.; Ichinose, M. 1996-08-09.** Amyloid Beta Proteins Reduce The Gaba-Induced Cl⁻ Current In Identified *Aplysia* Neurons. *Neuroscience Letters*, 213(3):213-215.
- Sawada, M.; Ichinose, M.; Hara, N. 1995.** Nitric oxide induces an increased Na⁺ conductance in identified neurons of *Aplysia*. *Brain Research* 670(2):248-256. [*Aplysia kurodai*]
- Schaefer, K. 1996.** Review of data on cephalaspid reproduction, with special reference to the genus *Haminaea* (Gastropoda, Opisthobranchia). *Ophelia*, 45(1): 17-37. [*Haminaea navicula*; *Haminaea exigua*]
- Scott, M.L.; Li, Y.; Kirk, M.D. 1995.** Functional neural regeneration in the feeding system in *Aplysia*: Behavioral recovery correlated with changes in buccal motor output. *Journal of Neurophysiology (Bethesda)* 73(1):39-55.
- Shippy, S.A.; Jankowski, J.A.; Sweedler, J.V. 1995.** Analysis of trace level peptides using capillary electrophoresis with UV laser-induced fluorescence. *Analytica Chimica Acta* 307(2-3):163-171. [*Aplysia californica*]
- Smith, K.C.; Long, S.E.; Parkinson, T.J. 1995.** Congenital abnormalities of the ovine paramesonephric ducts. *British Veterinary Journal* 151(4):443-452. [*Aplysia*]
- Soinila, S.; Mpitsos, G.J. 1996-07.** Putative Neuroendocrine Cells In The *Aplysia* Cerebral Ganglion. *Neuroscience Research* 25(3):209-216.
- Spatz, H.-C. 1995.** Posttranslational modification of protein kinase A: The link between short-term and long-term memory. *Behavioural Brain Research* 66(1-2):79-84. [*Aplysia*]
- Stopfer, M.; Carew, T.J. 1996-08-15.** Heterosynaptic Facilitation Of Tail Sensory Neuron Synaptic Transmission During Habituation In Tail-Induced Tail And Siphon Withdrawal Reflexes Of *Aplysia*. *Journal Neuroscience* 16(16):4933-4948.
- Stopfer, M.; Chen, X.H.; Tai, Y.T.; Huang, G.S.; and others. 1996-08-15.** Site Specificity Of Short-Term And Long-Term Habituation In The Tail-Elicited Siphon Withdrawal Reflex Of *Aplysia*. *Journal Neuroscience* 16(16): 4923-4932.
- Suenaga, K.; Kigoshi, H.; Yamada, K. 1996-07-15.** Auripyrone A And B, Cytotoxic Polypropionates From The Sea Hare *Dolabella auricularia* - Isolation And Structures. *Tetrahedron Letters* 37(29):5151-5154.
- Susswein, A.J.; Hurwitz, I. 1995.** Mechanism of the phase switch from protraction to retraction in buccal motor programs of *Aplysia californica*. *Society Neuroscience Abstracts* 21(1-3):149.
- Trudeau, L.-E.; Castellucci, V.F. 1995.** Postsynaptic modifications in long-term facilitation in *Aplysia*: Upregulation of excitatory amino acid receptors. *Journal Neuroscience* 15(2):1275-1284. [*Aplysia californica*]
- Tsubokawa, R., & Bolland, Robert F. 1991.** *Berthella martensi* (Pilsbry, 1896), New to the Japanese Noto-spidea Fauna. *Venus, Jap. Jour. Malac.*, 50 (3):184-195, 1 color plate. [English, Japanese summary: *Berthella pellucida*, *Berthella stellata*, *Berthella citrina*, *Umbraculum umbraculum*, *Pleurobranchus scutatus*, *Gymnotoplax*]
- Ueyama, H.; Sasaki, I.; Shimomura, K.; Suganuma, M. 1995.** Specific protein interacting with a tumor promoter, debromoaplysiatoxin, in bovine serum is alpha-1-acid glycoprotein. *Journal Cancer Research Clinical Oncology* 121(4):211-218.
- Van Heumen, W.R.A.; Nagle, G.T.; Kurosky, A. 1995.** Ultrastructural localization of egg-laying prohormone-related peptides in the atrial gland of *Aplysia californica*. *Cell & Tissue Research* 279(1):13-24.
- Walters, E.T.; Ambron, R.T. 1995.** Long-term alterations induced by injury and by 5-HT in *Aplysia* sensory neurons: Convergent pathways and common signals? *Trends in Neurosciences* 18(3):137-142.
- Warman, E.N.; Chiel, H.J. 1995.** A new technique for chronic single-unit extracellular recording in freely behaving animals using pipette electrodes. *Journal Neuroscience Methods* 57(2):161-169. [*Aplysia californica*]
- Watanabe, M.; Kawase, Y.; Tanabe, J.-I.; Min, K.-R.; Mue, S.; Ohuchi, K. 1995.** Suppression of interleukin-1 alpha production by protein kinase C activators in human vascular endothelial cells. *Journal Pharmacology Experimental Therapeutics* 272(2):808-814. [*Aplysiatoxin*]
- Wayne, N.L. 1994.** Role of cyclic AMP-dependent protein kinase (PKA) in regulating egg-laying hormone (ELH) secretion from *Aplysia* bag cells. *Netherlands Journal Zoology* 44(3-4):588-598.
- Wayne, N.L.; Frumovitz, M. 1995.** Calcium influx following onset of electrical afterdischarge is not required for hormone secretion from neuroendocrine cells of *Aplysia*. *Endocrinology* 136(1):369-372.
- Winfree, M.L.; Appland, J.P.; Filbert, M.G. 1995.** Zinc chelatin in vitro protection against botulinum toxin-induced loss of synaptic transmission in *Aplysia* buccal ganglia. *Abstracts Papers American Chemical Society* 209(1-2):AGFD 92. [*Aplysia californica*]
- Wright, W.G.; Carew, T.J. 1995.** A Single Identified Interneuron Gates Tail-Shock Induced Inhibition in the Siphon Withdrawal Reflex of *Aplysia*. *Journal Neuroscience* 15(1 PART 2):790-797.
- Xin, Y.; Kupfermann, I. 1995.** Neuronal pathways mediating head turning behavior in *Aplysia*. *Neuroscience Letters* 186(2-3):197-199. [*Aplysia californica*]
- Xin, Y.; Rosen, S.C.; Weiss, K.R.; Kupfermann, I. 1995.** Newly identified cerebral interganglionic-interneurons that may be involved in feeding behavior in *Aplysia*. *Society Neuroscience Abstracts* 21(1-3):150.
- Xin, Y.; Weiss, K.R.; Kupfermann, I. 1996.** A pair of identified interneurons in *Aplysia* that are involved in multiple behaviors are necessary and sufficient for the arterial-shortening component of a local withdrawal reflex. *Journal of Neuroscience*, v.16, n.14, (1996): 4518-4528. [*Aplysia californica*]
- Xin, Y.P.; Weiss, K.R.; Kupfermann, I. 1996-08-15.** An Identified Interneuron Contributes To Aspects Of Six Different Behaviors In *Aplysia*. *Journal Neuroscience* 16(16):5266-5279.
- Xu, Y.; Pieroni, J.P.; Cleary, L.J.; Byrne, J.H. 1995.** Modulation of an inhibitory interneuron in the neural circuitry for the tail withdrawal reflex of *Aplysia*. *Journal Neurophysiology* 73(3):1313-1318.
- Yamada, S.; Araki, S.; Abe, S.; Kon, K.; Ando, S.; Satake, M. 1995.** Structural analysis of a novel triphosphoglycosphingolipid from the egg of the sea hare, *Aplysia kurodai*. *Journal Biochemistry (Tokyo)* 117(4):794-799.
- Yamoah, E.N.; Crow, T. 1996.** Protein kinase and G-protein regulation of Ca²⁺-currents in *Hermisenda* photoreceptors by 5-HT and GABA. *Journal of Neuroscience*, v.16, n.15, (1996): 4799-4809. [*Hermisenda crassicornis*]
- Yamoah, E.N.; Smith, P.J.S. 1995.** Modulation of Ca²⁺ efflux in *Aplysia* bag cells by second messengers. *Biophysical Journal* 68(2 PART 2):A314.
- Yu, S.-N.; Crago, P.E.; Chiel, H.J. 1995.** Modulatory effects of FMRF-amide on *Aplysia* buccal muscle: Measurements and a membrane model. *Society Neuroscience Abstracts* 21(1-3):426.
- Zhang, R.-D.; Maksymowych, A.B.; Simpson, L.L. 1995.** Cloning and sequence analysis of a cDNA encoding human syntaxin 1A, a polypeptide essential for exocytosis. *Gene (Amsterdam)* 159(2):293-294. [*Aplysia*]
- Zhu, H.; Wu, F.; Schacher, S. 1995.** Changes in expression and distribution of *Aplysia* cell adhesion molecules can influence synapse formation and elimination in vitro. *Journal Neuroscience* 15(6): 4173-4183.

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