**Prof. Zvi Yaron**

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**CV**

Ph.D. 1969, The Hebrew Uniersity, Jerusalem
Post- doc: 1969-1970: University of California, Berkeley, USA
1970-1971: University of Alberta, Calgary, Canada
Faculty member, Tel Aviv University since 1965.
Editorial board: Aquaculture (Elsevier); Israel J. Aquaculture
1996-2003: Incumbent of Lederer Chair of Experimental Biology

**Research Interests**

Research interests include:

* Hypothalamic regulation of fish gonadotropins, release and subunit gene expression (signal transduction of GnRH,  PACAP and NPY).
* Spawning induction in cyprinid fish, hypophyseal and hypothalamic approaches.
* Endocrine disrupters (environmental estrogens).

**Recent Publications**

Melamed, P., Eliyahu, N., Levavi-Sivan, B., Ofir, M., Pisanty-Farhi, O., Rentier- Delrue, F., Smal, J., Yaron, Z. and Naor, Z. Hypothalamic and thyroidal regulation of growth hormone in tilapia. Gen. Comp. Endocrinol. 97, 13-30 (1995).

Yaron, Z. Endocrine control of gametogenesis and spawning induction in the carp. Aquaculture, 129, 49-73 (1995).

Levavi-Sivan, B. Ofir, M. and Yaron, Z. Possible sites of dopaminergic inhibition of gonadotropin release from the pituitary of a teleost fish, tilapia. Mol. Cell. Endocrinol. 109, 87-95 (1995).

Melamed P., Eliahu, N., Ofir, M., Levavi-Sivan, B., Smal, J., Rentier-Delrue, F. and Yaron, Z. The effects of gonadal development and sex steroids on growth hormone secretion in the male tilapia hybrid (Oreochromis niloticus x O. aureus). Fish Physiol. Biochem. 14, 267-277 (1995).

Kulikovsky, Z., Marttin, F.J.B. and Yaron, Z. A comparison of two spawning- inducing agents for common carp. Isr. J. Aquacult.- Bamidgeh 48, 108-111 (1996).

Melamed, P., Gur, G., Elizur, A., Rosenfeld, H., Rentier-Delrue, F. and Yaron, Z.Differential effects of gonadotropin releasing hormone, dopamine and somatostatin and their second messengers on the mRNA levels of gonadotropin IIß subunit and growth hormone in the teleost fish, tilapia. Neuroendocrinology 64, 320-328 (1996).

Poncelet, A.C., Levavi-Sivan, B., Müller, M., Yaron, Z., Martial, J.A. and Belayew, A. The tilapia prolactin I gene: evolutionary conservation of the regulatory elements directing pituitary-specific expression. DNA Cell Biol 15, 679-692 (1996).

Rothbard, S. Levavi-Sivan, B. and Yaron, Z. Breeding behavior and the associated taGtH and steroid levels in female Nile tilapia, oreochromis niloticus. Pol. Arch. Hydrobiol. 44, 83-92 (1997).

Rosenfeld, H., Levavi-Sivan, B., Melamed, P., Yaron, Z. and Elizur, A., The GtH ß subunits of tilapia: gene cloning and expression. Fish Physiol. Biochem. 17, 85-92 (1997).

Melamed, P., Gur, G., Rosenfeld, H., Elizur, A. and Yaron, Z. The mRNA levels of GtH Iß, GtH IIß and GH in relation to testicular development and testosterone treatment in pituitaries of male tilapia. Fish Physiol. Biochem. 17, 93-98 (1997).

De Monbrison, D, Tzchori, I., Holland, M.C., Zohar, Y., Yaron , Z. Elizur, A. Acceleration of gonadal development and spawning induction in the Mediterranean grey mullet, Mugil cephalus: preliminary studies. Isr. J. Aquaculture – Bamidgeh 49, 214-221. (1997).

Melamed, P., Rosenfeld, H., Elizur, A. and Yaron, Z. Endocrine regulation of gonadotropin and growth hormone gene transcription in fish. Comp. Biochem. Physiol. C119, 325-338 (1998).

Yaron, Z., Levavi-Sivan, B. Melamed, P., Rosenfeld, H., and Elizur, A. Second messengers involved in the response of GtH cells in fish: GtH release and GtH IIß mRNA levels. Ann. N.Y. Acad. Sci. 839, 254-259 (1998).

Rosenfeld, H., Levavi-Sivan, B., Melamed, P., Yaron, Z. and Elizur, A., The genes encoding the GtH ß subunits in tilapia.. Ann. N.Y. Acad. Sci. 839, 455-457 (1998).

Melamed, P., Gur, G., Rosenfeld, H., Elizur, A. and Yaron, Z. Interactions between gonadotrophs and somatotrophs in the pituitary of tilapia: apparent roles for insulin-like growth factors-I and estradiol. Endocrinology 140: 1183-1191 (1999).

Melamed, P. and Yaron, Z. Calcium ionophores lead to apoptotic-like changes in tilapia pituitary cells. Gen. Comp. Endocrinol. 114: 19-27 (1999).

Melamed, P., Gur, G., Rosenfeld, H., Elizur, A., Schulz, R. and Yaron, Z.Reproductive development of male and females tilapia hybrids (Oreochromis niloticus x O. aureus) and changes in mRNA levels of gonadotropin (GtH) Ib and IIbsubunits. J. Exp. Zool. 286, 64-75. (2000).

Gur, G., Melamed, P., Gissis, A. and Yaron, Z. The pituitary-gonadal axis during maturation of the black carp, Mylopharyngodon piceus. J. Exp. Zool. 286, 405-413. (2000).

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Gur, G., Bonfil., D., Safarian, H., Naor, Z. and Yaron, Z. GnRH signaling in tilapia pituitary cells: role of mitogen-activated protein kinase (MAPK). Comp. Biochem. Physiol. 129B, 517-524. (2001).

Gur, G., Rosenfeld, H., Melamed, P., Meiri, I., Elizur, A. and Yaron, Z.Molecular cloning of cDNA encoding tilapia glycoprotein subunit and its hypothalamic regulation. Mol. Cell. Endocrinol. 182,: 49-60 (2001).

Gur. G. Bonfil, D., Safarian, H., Naor, Z. and Yaron, Z. GnRH signaling pathways regulate differentially the tilapia gonadotropin subunit genes. Mol. Cell. Endocrinol. 189, 125-134 (2002).

Gur, G., Bonfil, D., Safarian, H., Naor, Z. and Yaron, Z. PACAP and NPY signaling pathways are involved in the regulation of gonadotropin subunit genes in tilapia. Neuroendocrinology 75, 164-174 (2002).

Kandel-Kfir, M., Gur, G, Melamed, P., Zilberstein, Y, Cohen, Y, Zmora, N., Kobayashi, M, Elizur, A.,Yaron, Z. Gonadotropin response to GnRH during sexual ontogeny in the common carp, Cyprinus carpio. Comp. Biochem, Physiol. 132B, 17-26. (2002).

Yaron, Z., Gur, G., Rosenfeld, H. and Levavi-Sivan, B. Spawning induction in fish and GnRH regulation of gonadotropins: modes of action. Fisheries Sciences 68 (Suppl.): 661-666. (2002).

Yaron, Z., Gur, G., Melamed, P., Rosenfeld, H., Elizur, A., Levavi-Sivan, B. Regulation of fish gonadotropins. Int. Rev. Cytology 225, 131-185 (2003).

Yaron, Z . et al. Spawning induction in the carp: Past experience and future prospects – a review. Isr. J. aquaculture 61, 5-26. (2009).

**Chapters in Books**

Rothbard, S. and Yaron, Z. Broodstock management and egg and larval quality of carp. In "Broodstock Management and Egg and Larval Quality" (N.R. Bromage and R.J. Roberts, Eds.). Blackwell Science, pp. 321-352 (1995).

Yaron, Z., Sivan, B., Drori, S. and Rothbard, S. The Endocrine control of reproduction in the carp. In "The Carp" (G. Wohlfarth and G.Hulata, Eds.). Israel Fish Breeding Association. (1995). (Hebrew).

Rothbard, S., Yaron, Z. and Lubzens, E. Technology of carp breeding. In "The Carp" (G. Wohlfarth and G. Hulata, Eds.). Israel Fish Breeding Association. (1995). (Hebrew).

Poncelet, A.C., Yaron, Z., Levavi-Sivan, B., Martial, J.A. and Muller, M. Regulation of prolactin gene expression in fishes. In: "Recent Advances in Marine Biotechnology" (R. Nagabhushanan, M.F. Thompson and M. Fingerman, Eds.). Oxford and IBH New Delhi, pp. 383-405. (1996).

Yaron, Z. and Sivan, B. Reproduction. In “The Physiology of Fishes” (Evans, D.H. and Claibourne, J.B., Eds.). Third edition, CRC Press, Taylor & Francis, Boca Raton , pp. 343-386. (2006).

Yaron, Z. and Levavi-Sivan, B. Endocrine Regulation of Fish Reproduction. In: "Encyclopedia of Fish Physiology From Genome to Environment" (Farrell, A.P., Ed.) Elsevire on line encyclopedia (in press).

**Papers presented in symposia**

Melamed, P., Eliahou, N., Ofir, M., Levavi-Sivan, B., Gur, G., Rentier-Delrue, F., Smal, J., Naor, Z. and Yaron. Z. Studies on the regulation of growth hormone in tilapia. In: "Improving the Knowledge Base in Modern Aquaculture. (H. Rosenthal, B. Moav and H. Gordin, eds.) Europ. Aqua. Soc. Spec. Publ. No. 25. (1995).

Yaron, Z. Gur, G., Melamed, P., Levavi-Sivan, B., Gissis, A., Bayer, D., Elizur, A., Holland, C., Zohar, Y. and Schreibman, M.P. Blocks along the hypothal- amo-hypophyseal-gonadal axis in immature black carp, Mylopharyngodon piceus. In: Proc. 5th. Int. Symp. Reproductive Physiology of Fish, Austin 1995. (F. Goetz and P. Thomas, eds.), FishSymp95, University of Texas at Austin. pp. 22-24. (1995).

Gur, G., Melamed, P., Levavi-Sivan, B., Holland, C., Gissis, A., Elizur, A., Zohar, Y. and Yaron, Z. Long-term testosterone treatment stimulates GTH II synthesis and release in the pituitary of the black carp, Mylopharyngodon piceus. In: Proc. 5th Int. Symp. Reproductive Physiology of Fish, Austin 1995. (F. Goetz and P.Thomas, eds.), FishSymp95, University of Texas at Austin p. 32. (1995).

Schreibman, M.P., Magliulio-Cepriano, L. Pennant, M., Yaron, Z. and Gur, G. Observations of the brain-pituitary-gonad axis in immature black carp. In: Proc. 5th Int. Symp. Reproductive Physiology of Fish, Austin 1995. (F. Goetz and P. Thomas, eds.), FishSymp95, University of Texas at Austin. p. 77. (1995).

Melamed, P., Gur, G., Levavi-Sivan, B., Elizur, A. and Yaron. Z. Intracellular mediation of the GnRH effect on transcription of the tilapia GTH IIß gene. In: Proc. 5th Int. Symp. Reproductive Physiology of Fish, Austin 1995. (F. Goetz and P.Thomas, eds.), FishSymp95, University of Texas at Austin. p. 38. (1995).

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Yaron, Z., Sivan, B., Drori, S. and Kulikovsky, Z. Spawning induction in cyprinids: hypophyseal and hypothalamic approaches. Acquacolture Internazionale, Verona (1999).

Gur, G., Melamed, P., Rosenfeld, H., Elizur, A. and Yaron, Z. Mechanisms involved in the effect of GnRH, PACAP, and NPY on gonadotropin subunit mRNAs in tilapia pituitary cells. In: Proceedings of the 6th International Symposium on Reproductive Physiology of Fish, Bergen 1999 (B. Norberg, O.S. Kjesbu, G.L. Taranger, E. Andersson and S.O. Stefansson, eds.). University of Bergen, pp. 466-468. (2000).

Kandel-Kfir, M., Gur, G., Melamed, P., Zmora, N., Kobayashi, M., Elizur, A. and Yaron, Z. FSHb and LHb mRNAs in maturing male and female common carp (Cyprinus carpio ) and the response to GnRH. In: Proceedings of the 6th International Symposium on Reproductive Physiology of Fish, Bergen 1999 (B. Norberg, O.S. Kjesbu, G.L. Taranger, E. Andersson and S.O. Stefansson, eds.). University of Bergen, p. 483 (2000).

Rosenfeld, H., Meiri, I, Melamed, P., Gur, G., Yaron, Z. and Elizur, A. Characterization of the tilapia b FSH gene and the analysis of its splice variants In: Proceedings of the 6th International Symposium on Reproductive Physiology of Fish, Bergen 1999 (B. Norberg, O.S. Kjesbu, G.L. Taranger, E. Andersson and S.O. Stefansson, eds.). University of Bergen, p. 484. (2000).

Zilberstein1, Y., Cohen, Y., Gur, G., Rosenfeld, H. Elizur, A. and Yaron, Z.Nonylphenol as a xenoestrogen in tilapia – hypophyseal effects. In: Proceedings of the 6th International Symposium on Reproductive Physiology of Fish, Bergen 1999 (B. Norberg, O.S. Kjesbu, G.L. Taranger, E. Andersson and S.O. Stefansson, eds.). University of Bergen, p. 374. (2000).

Cohen, Y., Zilberstein, Y. and Yaron, Z. Effect of native and xenoestrogen on the pituitary- gonadal axis in male tilapia. In: Proceedings of the 6th International Symposium on Reproductive Physiology of Fish, Bergen 1999 (B. Norberg, O.S. Kjesbu, G.L. Taranger, E. Andersson and S.O. Stefansson, eds.). University of Bergen, p. 375. (2000).

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Gur G., Bonfil, D., Safarian, H., Naor, Z. and Z. Yaron. Role of mitogen- activated protein kinase (MAPK) in GnRH receptor signaling in tilapia pituitary cells. In: Perspective in Comparative Endocrinology: Unity and Diversity (Goos, H.J.Th., Rastogi, R.K., Vaudry, H. and Pierantoni, R. Eds.). Monduzzi Editore, Bologna. pp. 53-61 (2001).

Safarian, H., Gur, G., Rosenfeld, H., Yaron, Z. and Levavi-Sivan, B. Regulation of GnRH receptors in tilapia pituitary. In: Perspective in Comparative Endocrinology: Unity and Diversity (Goos, H.J.Th., Rastogi, R.K., Vaudry, H. and Pierantoni, R. Eds.). Monduzzi Editore, Bologna. pp. 639-645 (2001).

Yaron, Z ., Gur, G., and Rosenfeld, H. Gonadotropin subunit genes in tilapia are differentially regulated by GnRH, PACAP and NPY: Divergence of signal transduction pathways. 6 th International Symposium on Fish Endopcrinology, Calgary , Satellite Symposium Abstract Sat 10 (2008)

**Books edited**

L. Fishelson and Z. Yaron. International Symposium on Tilapia in Aquaculture - Proceedings, Tel-Aviv University, 624 pp. (1983).