

## 14. PROGRAMA ANALITICO

*Seminario sobre la transducción de señales (2000). 15*

*Inst. Invest. Biof 2000 24*

### Parte Teórica:

NF-kB – NF-kB en insectos – Ligandos y receptores – Transducción mediada por proteína G y PKA – Receptores a tirosina-kinasas – Integrinas – MAP kinasas – Apoptosis – Receptores de esteroides – Jun-fos – Factores de crecimiento en Drosophila – Vía Wnt/Wingless

## 15.- BIBLIOGRAFIA

### Dr. Tomás Santa Coloma

- Farmacología Molecular: Receptores, transducción de señales y activación de genes. Marcelo G. Kazanietz, editor. Universidad Nacional de Quilmes Ediciones, Buenos Aires.
- Buelere, P. Current Biology 8: R19-R22, 1998.
- Radrizzani, M., Brocardo, M., González Solveira, C., Bianchini, M., Cafferata, E., Santa Coloma, T. Short Communication Medicina (Buenos Aires), 59: 753-758, 1999.
- Gold, L. The Journal of Biological Chemistry, Vol 270, N° 23: 13581-13584, 1995.
- Frizwater, T., Polisky, B. Methods in Enzymology, Vol 267: 275-301, 1996.

### Dr. Luis Quesada-Allué

- Zemaitre, B., Reichhart, J., Hoffmann, J. Proc. Natl. Acad. Sci. USA, Vol. 94: 14614-14619, 1997.
- Dushay, M., Asling, B., Hultmark, D., Proc. Natl. Acad. Sci. USA, Vol. 93: 10343-10347, 1996.
- Zemaitre, B., Nicolas, E., Michaut, L., Hoffmann, J. Cell. Vol. 86, 973-983, 1996.
- Hoffmann, J., Kasfatos, F., Janeway, C., Ezekowitz, R. Science. Vol. 284: 1313-1318, 1999.
- Zevashina, E., Langley, E., Green, C., Gubb, D., Ashburner, M., Hoffmann, J., Reichhart, J. Science. Vol. 285: 1917-1919, 1992.
- Whitham, S., Dinesh-Kumar, S. P., Choi, D., Hehl, R., Corr, C., Baker, B. Cell. Vol. 78: 1101-1115, 1994.
- Ip, T., Reach, M., Engstrom, Y., Kadalayil, L., Cai, H, Gonzalez-Crespo, S., Tatei, K, Levine, M. Cell. Vol. 75: 753-763, 1993
- Mathey-Prerot, B., Rerriman, N. Cell. Vol. 92: 697-700, 1998.
- Morris & Manley. Genes & Development Vol 10: 862-872, 1996.
- Meng, X., Khanuja, B., Ip T. Genes & Development Vol 13: (7) 792, 1999.

- Morisato, D., Anderson, K. Cell. Vol. 76, 677-688, 1994.

25

**Dr. Lino Barañao**

- Beato, M Klug, J. Steroid hormone receptors: an update. Human reproduction Update 2000, Vol 6 No3 pp 225-236

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- Signaling from Rho to the Actin Cytoskeleton Through Protein Kinases ROCK and LIM-kinase. M. Maekawa, T. Ishizaki, S. Boku, N. Watanabe, A. Fujita, A. Iwamatsu, T. Obinata, K. Ohashi, K. Mizuno, S. Narumiya. Science, Vol. 285, 895-898.(1999).
- Integrins can collaborate with growth factors for phosphorylation of receptor tyrosine kinases and MAP kinase activation: roles of integrin aggregation and occupancy of receptors. S. Miyamoto, H. Teramoto, J.S. Gutkind and K.M. Yamada. The Journal of Cell Biology, Vol. 135, 6, Part 1. 1633-1642 (1996).
- RAC1/P38 MAPK signalling pathway  $\beta$ -integrin-induced interleukin-8 production in human natural killer cells. F. Mainiero, A. Soriani, R. Strippoli, J. Jacobelli, A. Gismondi, M. Piccoli, L. Frati and A. Santoni. Immunity, Vol. 12, 7-16. (2000).
- Integrin Function: Molecular Hierarchies of Cytoskeletal and Signaling Molecules. S. Miyamoto, H. Teramoto, O.A. Coso, J. Silvio Gutkind, P. D. Burbelo, S. K. Akiyama and K.M. Yamada. The Journal of Cell Biology, Vol. 131, 3, 791-805 (1995).
- The Adaptor Protein Shc Couples a Class of Integrins to the Control of Cell Cycle Progression. K. K. Wary, F. Mainiero, S.J. Isakoff, E. E. Marcantonio and F.G. Giancotti. Cell, Vol. 87, 733-743, (1996).
- Integrins and anoikis. S.M. Frisch and E. Ruoslahti. Current Opinion in Cell Biology, 9: 701-706 (1997).
- Integrin signalling and tyrosine phosphorylation: just the FAKs? D.D. Schlaepfer and T. Hunter. Trends in Cell Biology. Vol 8. 151-157 (1998).
- Geometric Control of Cell Life and Death. C.S. Chen, M. Mrksich, S. Huang, G.M. Whitesides, D. E. Ingber. Science. 276. 1425-1428 (1997).
- Integrin signalling: specificity and control of cell survival and cell cycle progression. F.G. Giancotti. Current Opinion in Cell Biology. 9: 691-700 (1997).



- Integrin associated proteins. M.E. Hemler. Current Opinion in Cell Biology. 10: 578-585 (1998).
- Giancotti, F., Ruoslahti, E. Science Vol. 285: 1028-1032, 1999.
- Giancotti, F. Current Opinion in Cell Biology. Vol 9: 691-700, 1997.
- Frisch, S., Ruoslahti, E. Current Opinion in Cell Biology. Vol 9: 701-706, 1997.
- Shyy, J., Chien, S. Current Opinion in Cell Biology. Vol 9: 707-713, 1997.

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- Coso, O., Chiarello, M., Kalinec, G., Kyriakis, J., Woodgett, J., Gutkind, S. The Journal of Biological Chemistry. Vol. 270, N° 10, 5620-5624, 1995.
- Coso, O., Teramoto, H., Simonds, W., Gutkind, S. The Journal of Biological Chemistry. Vol. 271, N° 8, 3963-3966, 1996.
- Fromm, C., Coso, O., Montaner, S., Xu, N., Gutkind, S. Proc. Natl. Acad. Sci. USA. Vol. 94, 10098-10103, 1997.
- Guan, Z., Buckman, S., Sringer, L., Morrison, A. The Journal of Biological Chemistry, Vol. 274, 36200-36206, 1996.

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- Slupsky, J., Qwitterer, U., Weber, C., Gierschik, P., Lohse, M., Rapp, U. Current Biology, Vol. 9 N° 17, 971-974.
- Coso, O., Montaner, S., Fromm, C., Lacal, J., Prywes, R., Teramoto, H., Gutkind, S. The Journal of Biological Chemistry. Vol. 272, N° 33, 20691-20697, 1997.
- Teramoto, H., Crespo, P., Coso, O., Igishi, T., Xu, N., Gutkind, S. The Journal of Biological Chemistry. Vol. 271, N° 42, 25731-25734, 1996.
- Coso, O., Chiarello, M., Yu, J., Teramoto, H., Crespo, P., Xu, N., Miki, T., Gutkind, S., Cell. Vol. 81, 1137-1146, 1995.
- Cuvillier, O., Pirianov, G., Klevser, B., Vanek, P., Coso, O., Gutkind, S., Spiegel, S. Nature, Vol. 381, 800-803, 1996.
- Boshoff, C. Nature Vol. 391, 24-25, 1998
- Bais, C., Santomasso, B., Coso, O., Arvanitakis, L., Raaka, E., Gutkind, S., Asch, A., Cesarman, E., Gerhengorn, M., Mesri, E. Nature, Vol. 391, 86-89, 1998.
- Spiegel, A., Shenker, A., Simonds, W., Weinstein, L. Molecular Endocrinology: Basic Concepts and Clinical Correlations, Chapter 20, 1995.



### **Dr. Fernando Pitossi**

- The Bcl-2 Protein Family: Arbiters of Cell Survival. J.M. Adams and S. Cory. Science. Vol. 281, 1322-1326 (1998).
- Modulation of life and death by the TNF receptor superfamily. S.J. Baker and E.P. Reddy. Oncogene. 17 (25) 3261-3270. (1998).
- The Bcl-2 family and cell death regulation. K. Newton and A. Strasser. Current Opinion in Genetics & Development. 8: 68-75 (1998).
- Signal transduction pathways that regulate cell survival and cell death. T. Dragovich, C.M. Rudin and C.B. Thompson. Oncogene 17 (25): 3207-3213 (1998).
- Bcl-2 family proteins. J.C. Reed. Oncogene 17 (25): 3225-3236. (1998).
- Caspases: the proteases of the apoptotic pathway. G. Nuñez, M.A. Benedict, Y.Hu and N. Inohara. Oncogene 17 (25): 3237-3245 (1998).
- Cell suicide for beginners. Martin Raff. Nature. 396: 119-122 (1998).
- Death-inducing functions of ligands of the tumor necrosis factor family: a Sanhedrin verdict. D. Wallach, A.V. Kovalenko, E.E. Varfolomeev and M. P. Boldin. Current Opinion in Immunology, 10: 279-288 (1998).

### **SEMINARIOS**

#### **Dr. Osvaldo Podhajcer**

- Itoh y col. Nature Medicine Vol. 5 (2): 221-225, 1999.
- Maekawa y col. Science. Vol. 285: 895-898, 1999.
- Eisenmann y col. Nature Cell Biology. Vol. I; 507-513 (1999).

#### **Dr. Omar Pignataro**

- Venkateswarlu y Cullen. Biochem J. 345: 719-724 (2000)
- Quijano y Sheffield. J. Biol. Chem. 273: 1200-1207 (1988).

#### **Dr. Luis Quesada-Allué**

- Meng y col. Genes & Development 13 (7): 792, 1999

**Dr. Omar Coso**

- Witmarsh y col. Science Vol. 821, 1671, 1998.
- Dickens y col. Science Vol. 277, 693, 1997.
- Elion, E. Trends in Cell Biology. Vol. 5, 322, 1995.
- English y col. JBC Vol. 273, 3854, 1998.
- Kamakura y col. JBC Vol. 274, 26563, 1999.

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