

Prof. Micheline MISRAHI
Tel: 33-6-76-07-04-81
micheline.misrahi@aphp.fr

Fields of interest

- **Molecular and cellular mechanisms in Reproductive and Thyroid Endocrinology.**
- **Nuclear hormone receptors, membrane hormone receptors.**
- **Genetics of Infertility and disorders of Puberty. Primary ovarian failure.**

Professor Micheline Misrahi is MD and accomplished her specialization in **Biochemistry and Molecular Biology** at the University Paris South, Faculty of Medicine, France. She obtained her PhD in Biochemistry and Molecular Biology at the Paris VI University in 1985. The title of her PhD Thesis is " Study of the human Progesterone Receptor gene and of progesterone-regulated mRNAs in the endometrium".

-RESEARCH EVALUATION AND TEACHING LAST TEN YEARS-

- Director of the "Cell Signalling, Neurosciences, Endocrinology and Reproduction" Doctoral School, PhD program, Paris South
- Member of the Scientific Council of the Paris-South Faculty of Medicine
- Coordinator of the French National Institute of Health and Medical Research-. INSERM Endocrinology-Diabetes Interface Committee.
- Member of the French National Institute of Health and Medical Research- Committee of the National Research Program on Endocrinology and Reproduction.
- Member of the Scientific Council of the National Institute for Health and Medical Research-INSERM. France.
- Director of the Diploma in "Genetics and Reproduction", University Paris South.
- Expert at the National Agency of Drug Safety, France.
- Expert at the United State-Israel Bi-national Science Foundation

MAIN SCIENTIFIC RESULTS AND CONTRIBUTIONS

- Cloning of the human progesterone cDNA and gene
- Cloning of the porcine LH/CG receptor and of the human gene.
- Cloning of the human TSH receptor cDNA and gene
- Description of a novel family of basolateral targeting signals for the LH, FSH and TSH receptors
- Description of a new signalling pathway involving the protooncogene hScriB in TSHR trafficking
- Description of the mechanism involved in the cleavage and shedding of the TSH receptor.
- Contribution to the description of the first genetic cause of non syndromic hypogonadotropic hypogonadism with mutations of the GnRH receptor
- Description of the first genetic cause of familial Spontaneous Ovarian Hyperstimulation Syndrome with broadening specificity of the FSH receptor.
- Description of loss of function and constitutive mutations of the TSH receptor in congenital hypothyroidism and non immune hyperthyroidism
- Description of novel phenotypes associated with genetic defects of the FSH receptor in Primary Ovarian Failure .
- Description of male infertility with mutant Luteinizing hormone.
- Description of a novel pathophysiological mechanism of endometriosis with ovarian-like differentiation.
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More than 100 international publications in the field Citations : more than 6700. H index: 43.

10 SELECTED PUBLICATIONS

MISRAHI M., ATGER M., d'AURIOL L., LOOSFELT H., MERIEL C., FRIDLANSKY F., GUIOCHON-MANTEL A., GALIBERT F. and MILGROM E. Complete amino acid sequence of the human progesterone receptor deduced from cloned cDNA.

Biochem. Biophys. Res. Commun. 1987, 143, 740-748.

LOOSFELT H., MISRAHI M., ATGER M., SALESSE R., VU HAI-LUU THI M.T., JOLIVET A., GUIOCHON-MANTEL A., SAR S., JALLAL B., GARNIER J. and MILGROM E. Cloning and sequencing of Porcine LH/hCG receptor. Variants lacking transmembrane domain.

Science, 1989, 245, 525-528.

MISRAHI M., LOOSFELT H., ATGER M., SAR S., GUIOCHON-MANTEL A. and MILGROM E. Cloning, sequencing and expression of human TSH receptor. **Biochem. Biophys. Res. Commun.** 1990, 166, 394-403.

COUET J., SAR S., JOLIVET A., VU HAI M.T., MILGROM E. and MISRAHI M. Shedding of human thyrotropin receptor ectodomain. Involvement of a matrix metalloprotease.

J. Biol. Chem., 1996, 271, 4545-4552.

de ROUX N, YOUNG J, MISRAHI M., GENET R, CHANSON P. SCHAISON G, and MILGROM E. A family with hypogonadotropic hypogonadism and mutations in the gonadotropin-releasing hormone receptor.

N Engl J Med, 1997, 337, 1597-1602

BEAU I., TOURAINE P., MEDURI G., GOUGEON A., DESROCHES A., MATUCHANSKY C., MILGROM E., KUTTENN F., and MISRAHI M. A novel phenotype related to partial loss of function mutations of the FSH receptor.

J. Clin. Invest., 1998, 102, 1352-1259.

MISRAHI M., TEGLAS J.P., BURGARD M., MAYAUX M.J., ROUZIOUX C., DELFRAISSY F., and BLANCHE S. Chemokine receptor CCR5 gene mutation and mother -to-child transmission of HIV-1. **J A M A**, 1998, 279, 277-280.

VASSEUR C., BEAU I., DESROCHES A., GERARD C., de PONCHEVILLE L., CHAPLOT S., SAVAGNER F., CROUE A., MATHIEU E., LAHLOU N., DESCAMPS P., RODIEN P. and MISRAHI M.

Familial gestational spontaneous ovarian hyperstimulation syndrome (OHSS) is caused by a mutant Follicle-Stimulating Hormone Receptor (FSHR) abnormally sensitive to human Chorionic Gonadotropin (hCG).

N. Engl. J. Med., 2003, 349, 753-759.

LAHUNA O., QUELLARI M., ACHARD C., NOLA S., MÉDURI G., NAVARRO C., VITALE N, BORG J. P. AND MISRAHI M.

Thyrotropin receptor trafficking relies on the hScrib-βPIX-GIT1-ARF6 pathway

EMBO J., 2005, 24, 1364-74.

ACHARD* C., COURTILLOT* C., LAHUNA* O., MEDURI G., SOUFIR J-C., LIERE P., BACHELOT A., SCHUMACHER M., KUTTENN F., TOURAINE P.* , and MISRAHI M.*. Quantitatively Normal Spermatogenesis in Familial Hypogonadism with Mutation of the Beta Subunit of Luteinizing Hormone. **New Engl J Med**, 2009, 361, 1856-63.