

Gilles Thomas

Academic titles

Institution and location	Degree	Year	Field of study
Ecole Polytechnique, Paris	Engineer	1970	Math. and Physics
Université Paris VII	Ph.D.	1977	Biochemistry
Université Paris VI	M.D.	1989	Medicine

Present positions

Fondation Synergie-Lyon-Cancer
 Professor of Medical Genetics at University LYON 1.

Education

- 1967-1970 : Ecole Polytechnique, Paris.
- 1970 : Maîtrise de Biochimie. Faculté des Sciences - Université Paris VII.
- 1971 : D.E.A. de Biologie Moléculaire et Structurale - Université Paris VII.
- 1977 : Doctorat d'Etat ès Sciences (Ph.D.), in basic biochemistry (U. Paris VII).
- 1977-1983 : Medical studies - Faculté de Médecine - Université Paris VI.
- 1989 : Doctorat en Médecine (M.D.) - Université Paris VI.

Previous employment

- 1973-1978 : Attaché de recherche, CNRS.
- 1979-1990 : Chargé de recherche, CNRS.
- 1990-1995 : Directeur de recherche (2nd class), CNRS.
- 1995-1997 : Directeur de recherche (1st class), CNRS.
- 1996-2005 : Scientific director of Fondation Jean Dausset / C.E.P.H.
- 1992-2005 : Head of the Laboratory of Tumor Genetics INSERM U434.
- 1997-2005 : Professor of Medical Genetics, Université PARIS VI.
- 2005-2008 : Senior Scientist, National Cancer Institute, National Institute of Health, Bethesda, U.S.A.
- 2008- : Fondation Synergie-Lyon-Cancer
- 2009- : Professor of Medical Genetics, Université LYON I.

Honors

- Laureate of the French Academy of Science.
- Laureate of the French Academy of Medicine.

Main Scientific Activities

- 1971-1981 Genetic Expression in E. coli (Université Paris VII)
 - Studies on the tertiary structure of E. coli tRNA.
 - Photochemistry and photobiology of E. coli :
 - * Identification of the chromophore responsible of photoprotection and near ultraviolet induced growth delay.
 - * Description of the biochemical pathways involved in these processes.

- 1982-2005 Somatic mutations in human tumors (Institut Curie then Fond. J. Dausset - CEPH)
 - * Chromosome translocations in Ewing's sarcoma and related tumors.
 - * Somatic mutations in meningiomas and schwannomas.
 - * Somatic mutations in colorectal cancer.

- 1990-2005 Monogenic predisposition to tumor (Institut Curie then Fond. J. Dausset - CEPH)
 - * Neurofibromatosis type 2.
 - * Genetic predisposition to various cancers.

- 1982-2005 Polyfactorial predisposition to inflammation (Inst. Curie , Fond. J. Dausset - CEPH)
 - * Crohn's disease.

- 2005 - Polyfactorial predisposition to cancer : Genome Wide Association Studies
(Division of Cancer Epidemiology and Genetics - NCI)
 - * Breast cancer (CGEMS)
 - * Prostate cancer (CGEMS).

- 2009 Germline and somatic genomics of cancer : Genome Wide Sequencing Studies
(Institut National du Cancer (INCa), Synergie-Lyon-Cancer, Centre Leon Berard)
 - * Breast cancer
 - * Other tumors (Hepatocellular carcinoma).

Main publications

Mac Donald, R.J., Crerar, M.M., Swain, W.F., Pictet, R.L., Thomas, G. & Rutter, W.J. Structure of a family of rat amylase genes. **Nature**, 287:117-122, (1980).

Law, D.J., Olschwang, S., Monpezat, J.P., Lefrancois, D., Jagelman, D., Petrelli, Nj., Thomas, G. & Feinberg, A.P. Concerted nonsyntenic allelic loss in human colorectal carcinoma. **Science**, 241:961-964 (1988).

Delattre, O., Olschwang, S., Law, D.J., Melot, T., Remvikos, Y., Salmon, R.J., Sastre, X., Validire, P., Feinberg, A.P. & Thomas, G. Multiple genetic alterations in distal and proximal colorectal cancer. **The Lancet**, II:353-356 (1989).

Fearon, E.R., Cho, K.R., Nigro, J.M., Kern, S.E., Simons, J.W., Ruppert, J.M., Hamilton, S.R., Preisinger, A.C., Thomas, G., Kinzler, K.W. & Vogelstein, B. Identification of a chromosome 18q gene that is altered in colorectal cancers. **Science**, 247:49-56 (1990).

Delattre O., Zucman J., Plougastel B., Desmaze C., Melot T., Peter M., Kovar H., Joubert I., de Jong P., Rouleau G. & Thomas G. Gene fusion with an ETS DNA-binding domain caused by chromosome translocation in human tumours. **Nature**, 359:162-5 (1992)

Rouleau G.A., Merel P., Lutchman M., Sanson M., Zucman J., Marineau C., Hoang-Xuan K., Demczuk S., Desmaze C., Plougastel B. & Thomas G. Alteration in a new gene encoding a putative membrane-organizing protein causes neurofibromatosis type 2. **Nature**, 10:363-21 (1993)

Zucman, J., Delattre, O., Desmaze, C., Epstein, A.L., Stenman, G., Speleman, F., Fletchers, C., Aurias, A. & Thomas, G. EWS and ATF-1 gene fusion induced by t(12;22) translocation in malignant melanoma of soft parts. **Nat Genet**, 4:341-345 (1993).

Olschwang, S., Tiret, E., Laurent-Puig, P., Muleris, M., Parc, R. & Thomas, G. Restriction of ocular fundus lesions to a specific subgroup of APC mutations in adenomatous polyposis coli patients. **Cell**, 75:959-968 (1993).

Delattre, O., Zucman, J., Melot, T., Sastre, X., Zucker, Jm., Lenoir, G., Ambros, P., Sheer, D., Turc-Carel, C., Triche, T., Aurias, A. & Thomas, G. The Ewing family of tumours: a subgroup of small round cell tumours defined by specific chimeric transcripts. **New Engl J Med**, 331:294-299 (1994).

Hugot J.P., Laurent-Puig P., Gower-Rousseau C., Olson J.M., Lee J.C., Beaugierie L., Naom I., Dupas J.L., Van Gossum A., Orholm M., Bonaiti-Pellie C., Weissenbach J., Mathew C.G., Lennard-Jones J.E., Cortot A., Colombel J.F. & Thomas G. Mapping of a susceptibility locus for Crohn's disease on chromosome 16. **Nature**, 379:821-3 (1996).

Olschwang S., Hamelin R., Laurent-Puig P., Thuile B., De Rycke Y., Li Y.J., Muzeau F., Girodet J., Salmon R.J. & Thomas G. Alternative genetic pathway in colorectal carcinogenesis. **Proc Natl Acad Sci USA**, 94:1021-1030 (1997).

Zucman, J., Legoix, P., Victor, J.M., Lopez, B. & Thomas, G. Chromosome translocation based on illegitimate recombination in human tumors. **Proc Natl Acad Sci USA**, 95:11786-11791 (1998).

Giovannini, M., Robanus-Maandag, E., Niwa-Kawakita, M., Van der Valk, M., Woodruff, J.M., Goutebroze, L., Merel, P., Berns, A. & Thomas, G. Schwann cell hyperplasia and tumors in transgenic mice expressing a naturally occurring mutant NF2 protein. **Genes Dev**, 13:978-986 (1999).

Giovannini M., Robanus-Maandag E., van der Valk M., Niwa-Kawakita M., Abramowski V., Goutebroze L., Woodruff J.M., Berns A., & Thomas G. Conditional biallelic Nf2 mutation in the mouse promotes manifestations of human neurofibromatosis type 2. **Genes Dev**, 14:1617-30 (2000).

Hugot J.P., Chamaillard M., Zouali H., Lesage S., Cézard J.P., Belaiche J., Almer S., Tysk K., O'Morain C.A., Gassull M., Binder V., Finkel Y., Cortot A., Modigliani R., Laurent-Puig P., Gower-Rousseau C., Macry J., Colombel J.F., Sahbatou S. & Thomas G. Association of Nod-2 leucine-rich repeat variants with susceptibility to Crohn's disease **Nature**, 411:599-603 (2001).

Miceli-Richard C., Lesage S., Rybojad M., Prieur AM, Manouvrier-Hanu S., Häfner R., Chamaillard M., Zouali H., Thomas G. & Hugot J.P. NOD2 mutations in Blau Syndrome **Nature Genet**, 29:19-20 (2001).

Cann H.M., de Toma C., Legrand M.F., Morel V., Piouffre L., Bodmer J., Bodmer W.F., Bonne-Tamir., Cambon-Thomsen A., Chen Z., Chu J., Carcassi C., Contu L., Du R., Excoffier L., Ferrara G.B., Friedlaender J.S., Groot H., Gurwitz D., Jenkins T., Herrera R.J., Huang X., Kidd J., Kidd K.K. Langaney A., Lin A.A., Medhi S.Q., Parham P., Piazza A., Pistorio M.P., Quian Y., Shu Q., Xu J., Zhu S., Weber J.L., Greely H.T., Feldman M.W., Thomas G., Dausset J., Cavalli-Sforza L.L. A human genome diversity panel. **Science**, 296:261-262 (2002).

Chamaillard M., Philpott D., Girardin S.E., Zouali H., Lesage S., Chareyre F., Bui T.H., Giovannini M., Zaehring U., Penard-Lacronique V., Sansonetti P., Hugot J.P. & Thomas G. Gene/environment interaction modulated by allelic heterogeneity in inflammatory diseases. **Proc Natl Acad Sci USA**, 100:3455-60 (2003).

Yeager M, Orr N, Hayes RB, Jacobs KB, Kraft P, Wacholder S, Minichiello MJ, Fearnhead P, Yu K, Chatterjee N, Wang Z, Welch R, Staats BJ, Calle EE, Feigelson HS, Thun MJ, Rodriguez C, Albanes D, Virtamo J, Weinstein S, Schumacher FR, Giovannucci E, Willett WC, Cance Tassin G, Cussenot O, Valeri A, Andriole GL, Gelmann EP, Tucker M, Gerhard DS, Fraumeni JF Jr, Hoover R, Hunter DJ, Chanock SJ & Thomas G. Genome-wide association study of prostate cancer identifies a second risk locus at 8q24. **Nat Genet**, 39:645-9 (2007).

Hunter DJ, Kraft P, Jacobs KB, Cox DG, Yeager M, Hankinson SE, Wacholder S, Wang Z, Welch R, Hutchinson A, Wang J, Yu K, Chatterjee N, Orr N, Willett WC, Colditz GA, Ziegler RG, Berg CD, Buys SS, McCarty CA, Feigelson HS, Calle EE, Thun MJ, Hayes RB, Tucker M, Gerhard DS, Fraumeni JF Jr, Hoover RN, Thomas G. & Chanock SJ. A genome-wide association study identifies alleles in FGFR2 associated with risk of sporadic postmenopausal breast cancer. **Nat Genet**. **Nat Genet**, 39:870-4 (2007)

Thomas G, Jacobs KB, Yeager M, Kraft P, Wacholder S, Orr N, Yu K, Chatterjee N, Welch R, Hutchinson A, Crenshaw A, Cancel-Tassin G, Staats BJ, Wang Z, Gonzalez-Bosquet J, Fang J, Deng X, Berndt SI, Calle EE, Spencer Feigelson H, Thun MJ, Rodriguez C, Albanes D, Virtamo J, Weinstein S, Schumacher FR, Giovannucci E, Willett WC, Cussenot O, Valeri A, Andriole GL, Crawford ED, Tucker M, Gerhard DS, Fraumeni JF, Jr., Hoover R, Hayes RB, Hunter DJ & Chanock SJ Multiple novel loci identified in a genome-wide association study of prostate cancer **Nat Genet**, 40:310-5(2008).

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