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Key publications

Year of publication 2022

Clelia Mathieu, Quentin Chamayou, Thi Thanh Hyen Luong, Delphine Naud, Florence Mahuteau-Betzer, Mouad Alami, Elias Fattal, Samir Messaoudi, Juliette Vergnaud-Gauduchon (2022 Feb 5)

Synthesis and antiproliferative activity of 6BrCaQ-TPP conjugates for targeting the mitochondrial heat shock protein TRAP1.

European journal of medicinal chemistry : 229 : 114052 : [DOI : 10.1016/j.ejmech.2021.114052](https://doi.org/10.1016/j.ejmech.2021.114052)

Sounderya Nagarajan, Florent Poyer, Laura Fourmois, Delphine Naud-Martin, Kadda Medjoubi, Andrea Somogyi, Gabrielle Schanne, Lucas Henry, Nicolas Delsuc, Clotilde Policar, Helene C Bertrand, Florence Mahuteau-Betzer (2022 Jan 25)

Cellular detection of a mitochondria targeted brominated vinyl triphenylamine optical probe (TP-Br) by X-ray fluorescence microscopy.

Chemistry (Weinheim an der Bergstrasse, Germany) : Accepted Article : [DOI :](https://doi.org/10.1002/chem.202104424)

[10.1002/chem.202104424](https://doi.org/10.1002/chem.202104424)

Florence Mahuteau-Betzer, Marie Auvray, Frédéric Bolze, Delphine Naud-Martin, Matthieu Poulain, Margaux Bossuat, Gilles Clavier (2022 Jan 21)

On the road for more efficient biocompatible two-photon excitable fluorophores.

Chemistry (Weinheim an der Bergstrasse, Germany) : Accepted Article : [DOI :](https://doi.org/10.1002/chem.202104378)

[10.1002/chem.202104378](https://doi.org/10.1002/chem.202104378)

Year of publication 2021

Laura Fourmois, Florent Poyer, Aude Sourdon, Delphine Naud-Martin, Sounderya Nagarajan, Rahima Chennoufi, Eric Deprez, Marie-Paule Teulade-Fichou, Florence Mahuteau-Betzer (2021 Jul 15)

Modulation of cellular fate of vinyl triarylamines through structural fine tuning: to stay or not to stay in the mitochondria?

Chembiochem : a European journal of chemical biology : 22 : 2457-2467 : DOI : [10.1002/cbic.202100168](https://doi.org/10.1002/cbic.202100168)

Auvray M., Bolze F., Clavier G., Mahuteau-Betzer F. (2021 Mar 1)

Silafluorene as a promising core for cell-permeant, highly bright and two-photon excitable fluorescent probes for live-cell imaging

Dyes and Pigments : 187 : 109083 : DOI : [10.1016/j.dyepig.2020.109083](https://doi.org/10.1016/j.dyepig.2020.109083)

Year of publication 2020

Breton-Patient C., Naud-Martin D., Mahuteau-Betzer F., Piguel S. (2020 Nov 15)

Three-component C-H bond sulfonylation of imidazoheterocycles via visible-light organophotoredox catalysis.

European Journal of Organic Chemistry : 2020 : 6653-6660 : DOI : [10.1002/ejoc.202001219](https://doi.org/10.1002/ejoc.202001219)

Rahima Chennoufi, Ngoc-Duong Trinh, Françoise Simon, Guillaume Bordeaux, Delphine Naud-Martin, Albert Moussaron, Bertrand Cinquin, Houcine Bougherara, Béatrice Rambaud, Patrick Tauc, Céline Frochet, Marie-Paule Teulade-Fichou, Florence Mahuteau-Betzer & Eric Deprez (2020 Apr 23)

Interplay between cellular uptake, intracellular localization and the cell death mechanism in triphenylamine-mediated photoinduced cell death

Scientific Reports : 10 : 6881 : DOI : [10.1038/s41598-020-63991-9](https://doi.org/10.1038/s41598-020-63991-9)

Year of publication 2019

Morgan Pellerano, Delphine Naud-Martin, Florence Mahuteau-Betzer, Marie Morille, May Catherine Morris (2019 Feb 15)

Fluorescent biosensor for detection of the R248Q aggregation-prone mutant of p53.

Chembiochem : a European journal of chemical biology : 20 : 605-613 : DOI : [10.1002/cbic.201800531](https://doi.org/10.1002/cbic.201800531)

Pauline Gilson, Morgane Couvet, Laetitia Vanwonderghem, Maxime Henry, Julien Vollaïre, Vladimir Baulin, Marco Werner, Anna Orłowska, Véronique Jossierand, Florence Mahuteau-Betzer, Laurence Lafanechère, Jean-Luc Coll, Benoit Busser, Amandine Hurbin (2019 Feb 1)

The pyrrolopyrimidine colchicine-binding site agent PP-13 reduces the metastatic dissemination of invasive cancer cells *in vitro* and *in vivo*.

Biochemical pharmacology : 160 : 1-13 : DOI : [10.1016/j.bcp.2018.12.004](https://doi.org/10.1016/j.bcp.2018.12.004)

Delphine Naud-Martin, Corinne Landras-Guetta, Daniela Verga, Deepanjan Ghosh, Sylvain

Achelle, Florence Mahuteau-Betzer, Sophie Bombard, Marie-Paule Teulade-Fichou (2019 Jan 26)

Selectivity of Terpyridine Platinum Anticancer Drugs for G-quadruplex DNA.

Molecules (Basel, Switzerland) : 24 : 404 : [DOI : 10.3390/molecules24030404](https://doi.org/10.3390/molecules24030404)

Year of publication 2018

Luis M.G. Abegão, Ruben D Fonseca, Tárcius N Ramos, Florence Mahuteau-Betzer, Sandrine FIGUEL, José J. Rodrigues Jr, Cleber R. Mendonca, Sylvio Canuto, Daniel Luis Silva, and Leonardo De Boni (2018 Apr 12)

Oxazole dyes with potential for photoluminescence bioprobes: A two-Photon absorption study

The Journal of Physical Chemistry C : 122 : 10526-10534 : [DOI : 10.1021/acs.jpcc.8b01904](https://doi.org/10.1021/acs.jpcc.8b01904)

Hammerer F., Poyer F., Fourmois L., Chen S., Garcia G., Teulade-Fichou M.P., Maillard P., Mahuteau-Betzer F. (2018 Jan 1)

Mitochondria-targeted cationic porphyrin-triphenylamine hybrids for enhanced two-photon photodynamic therapy

Bioorganic & Medicinal Chemistry : 26 : 107-118 : [DOI : 10.1016/j.bmc.2017.11.024](https://doi.org/10.1016/j.bmc.2017.11.024)

Year of publication 2017

Pauline Gilson, Fernando Josa-Prado, Claire Beauvineau, Delphine Naud-Martin, Laetitia Vanwonterghem, Florence Mahuteau-Betzer, Alexis Moreno, Pierre Falson, Laurence Lafanechère, Véronique Frachet, Jean-Luc Coll, Jose Fernando Díaz, Amandine Hurbin, Benoit Busser (2017 Sep 2)

Identification of pyrrolopyrimidine derivative PP-13 as a novel microtubule-destabilizing agent with promising anticancer properties.

Scientific reports : 7 : 10209 : [DOI : 10.1038/s41598-017-09491-9](https://doi.org/10.1038/s41598-017-09491-9)

Claire Beauvineau, Corinne Guetta, Marie-Paule Teulade-Fichou, Florence Mahuteau-Betzer (2017 Aug 14)

PhenDV, a turn-off fluorescent quadruplex DNA probe for improving the sensitivity of drug screening assays

Organic & Biomolecular Chemistry : 15 : 7117-7121 : [DOI : 10.1039/c7ob01705g](https://doi.org/10.1039/c7ob01705g)

Marie-Paule Teulade-Fichou, Joël Lefebvre, Corinne Guetta, Florent Poyer, Florence Mahuteau-Betzer (2017 Jul 13)

Copper-alkyne complexation is responsible for the Nucleolar Localisation of Quadruplex Nucleic Acid Drugs Labelled by Click Chemistry.

Angewandte Chemie (International ed. in English) : 56 : 11365-11369 : [DOI :](https://doi.org/10.1002/anie.201703783)

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Chennoufi R., Mahuteau-Betzer F., Tauc P., Teulade-Fichou M.P., Deprez E. (2017 Jun 18)

Triphenylamines Induce Cell Death Upon 2-Photon Excitation

Molecular Imaging : 16 : 1-4 : [DOI : 10.1177/1536012117714164](https://doi.org/10.1177/1536012117714164)

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Targeting Conformational Activation of CDK2 Kinase.

Biotechnology journal : 12 : 1600531 : [DOI : 10.1002/biot.201600531](https://doi.org/10.1002/biot.201600531)

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Conversion of 3-Bromo-2H-coumarins to 3-(Benzofuran-2-yl)-2H-coumarins under Palladium Catalysis: Synthesis and Photophysical Properties Study.

Organic letters : 19 : 910-913 : [DOI : 10.1021/acs.orglett.7b00069](https://doi.org/10.1021/acs.orglett.7b00069)

J Santo, C Lopez-Herrera, C Apolit, Y Bareche, L Lapasset, C Chavey, S Capozzi, F Mahuteau-Betzer, R Najman, P Fornarelli, I C Lopez-Mejía, G Béranger, F Casas, E-Z Amri, B Pau, D Scherrer, J Tazi (2017 Feb 14)

Pharmacological modulation of LMNA SRSF1-dependent splicing abrogates diet-induced obesity in mice.

International journal of obesity : 41 : 390-401 : [DOI : 10.1038/ijo.2016.220](https://doi.org/10.1038/ijo.2016.220)

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Morgan Pellerano, Delphine Naud-Martin, Marion Peyressatre, Camille Prével, Marie-Paule Teulade-Fichou, May Morris, Florence Mahuteau-Betzer (2016 Mar 17)

TP-2Rho Is a Sensitive Solvatochromic Red-Shifted Probe for Monitoring the Interactions between CDK4 and Cyclin D.

Chembiochem : a European journal of chemical biology : 17 : 737-744 : [DOI : 10.1002/cbic.201500641](https://doi.org/10.1002/cbic.201500641)

Rahima Chennoufi, Houcine Bougherara, Nathalie Gagey-Eilstein, Blaise Dumat, Etienne Henry, Frédéric Subra, Stéphanie Bury-Moné, Florence Mahuteau-Betzer, Patrick Tauc, Marie-Paule Teulade-Fichou, Eric Deprez (2016 Mar 8)

Mitochondria-targeted Triphenylamine Derivatives Activatable by Two-Photon Excitation for Triggering and Imaging Cell Apoptosis.

Scientific reports : 6 : 21458 : [DOI : 10.1038/srep21458](https://doi.org/10.1038/srep21458)

Blaise Dumat, Elodie Faurel-Paul, Pauline Fornarelli, Nicolas Saettel, Germain Metgé, Céline Fiorini-Debuisschert, Fabrice Charra, Florence Mahuteau-Betzer, Marie-Paule Teulade-Fichou (2016 Jan 7)

Influence of the oxazole ring connection on the fluorescence of oxazolyl-triphenylamine biphotonic DNA probes.

Organic & biomolecular chemistry : 14 : 358-370 : [DOI : 10.1039/c5ob02225h](https://doi.org/10.1039/c5ob02225h)

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Differential behaviour of cationic triphenylamine derivatives in fixed and living cells: triggering and imaging cell death.

Chemical communications (Cambridge, England) : 51 : 14881-14884 : [DOI : 10.1039/c5cc05970d](https://doi.org/10.1039/c5cc05970d)

Guillaume Kellermann, Markus Kaiser, Florent Dingli, Olivier Lahuna, Delphine Naud-Martin, Florence Mahuteau-Betzer, Damarys Loew, Evelyne Ségal-Bendirdjian, Marie-Paule Teulade-Fichou, Sophie Bombard (2015 Sep 3)

Identification of human telomerase assembly inhibitors enabled by a novel method to produce hTERT.

Nucleic acids research : 43 : e99 : [DOI : 10.1093/nar/gkv425](https://doi.org/10.1093/nar/gkv425)

Kathleen Solmont, Hamza Boufroua, Amel Souibgui, Pauline Fornarelli, Anne Gaucher, Florence Mahuteau-Betzer, Béchir Ben Hassine, Damien Prim (2015 May 13)

Divergent strategy for the synthesis of original dihydrobenzo- and dihydronaphtho-acridines.

Organic & biomolecular chemistry : 13 : 6269-6277 : [DOI : 10.1039/c5ob00456j](https://doi.org/10.1039/c5ob00456j)

Florence Mahuteau-Betzer (2015 May 12)

The French National Compound Library: advances and future prospects.

Médecine sciences : M/S : 31 : 417-422 : [DOI : 10.1051/medsci/20153104016](https://doi.org/10.1051/medsci/20153104016)

Noëlie Campos, Renier Myburgh, Aude Garcel, Audrey Vautrin, Laure Lapasset, Erika Schläpfer Nadal, Florence Mahuteau-Betzer, Romain Najman, Pauline Fornarelli, Katjana Tantale, Eugénia Basyuk, Martial Séveno, Julian P Venables, Bernard Pau, Edouard Bertrand, Mark A Wainberg, Roberto F Speck, Didier Scherrer, Jamal Tazi (2015 Apr 19)

Long lasting control of viral rebound with a new drug ABX464 targeting Rev - mediated viral RNA biogenesis.

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Delphine Naud-Martin, Xavier Martin-Benlloch, Florent Poyer, Florence Mahuteau-Betzer, Marie-Paule Teulade-Fichou (2014 Feb 1)

Acrid-2,7-Py, a bright red-emitting DNA probe identified through screening of a distyryl dye library.

Biotechnology journal : 9 : 301-310 : [DOI : 10.1002/biot.201300197](https://doi.org/10.1002/biot.201300197)

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DNA switches on the two-photon efficiency of an ultrabright triphenylamine fluorescent probe specific of AT regions.

Journal of the American Chemical Society : 135 : 12697-12706 : [DOI : 10.1021/ja404422z](https://doi.org/10.1021/ja404422z)

Souibgui A., Gaucher A., Marrot J., Aloui F., Mahuteau-Betzer F., Ben Hassine B., Prim D. (2013 Jul 1)

A Flexible Strategy Towards Thienyl-, Oxazolyl- and Pyridyl-Fused Fluorenones

European Journal of Organic Chemistry : 2013 : 4515-4522 : [DOI : 10.1002/ejoc.201300233](https://doi.org/10.1002/ejoc.201300233)

Mahuteau-Betzer F., Piguel S. (2013 Jun 12)

Synthesis and evaluation of photophysical properties of Series of π -conjugated oxazole dyes

Tetrahedron Letters : 54 : 3188-3193 : [DOI : https://doi.org/10.1016/j.tetlet.2013.04.037](https://doi.org/10.1016/j.tetlet.2013.04.037)

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Ada Collura, Laetitia Marisa, Diletta Trojan, Olivier Buhard, Anaïs Lagrange, Arnaud Saget, Marianne Bomble, Patricia Méchighel, Mira Ayadi, Martine Muleris, Aurélien de Reynies, Magali Svrcek, Jean-François Fléjou, Jean-Claude Florent, Florence Mahuteau-Betzer, Anne-Marie Faussat, Alex Duval (2012 Sep 26)

Extensive characterization of sphere models established from colorectal cancer cell lines.

Cellular and molecular life sciences : CMLS : 2 : 729-42 : [DOI : 10.1007/s00018-012-1160-9](https://doi.org/10.1007/s00018-012-1160-9)

Blaise Dumat, Guillaume Bordeaux, Ana I Aranda, Florence Mahuteau-Betzer, Yara El Harfouch, Germain Metgé, Fabrice Charra, Céline Fiorini-Debuisschert, Marie-Paule Teulade-Fichou (2012 May 23)

Vinyl-triphenylamine dyes, a new family of switchable fluorescent probes for targeted two-photon cellular imaging: from DNA to protein labeling.

Organic & biomolecular chemistry : 30 : 6054-6061 : [DOI : 10.1039/c2ob25515d](https://doi.org/10.1039/c2ob25515d)

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N-phenyl-carbazole-based two-photon fluorescent probes: strong sequence dependence of the duplex vs quadruplex selectivity.

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Year of publication 2009

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C-H Bond Activation: A Versatile Protocol for the Direct Arylation and Alkenylation of Oxazoles

Synthesis : 2009 : 3511-3518 : [DOI : 10.1055/s-0029-1216987](https://doi.org/10.1055/s-0029-1216987)

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The Journal of organic chemistry : 3278-3280 : [DOI : 10.1021/jo7027135](https://doi.org/10.1021/jo7027135)

Year of publication 2007

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Inhibition of nonsense-mediated mRNA decay (NMD) by a new chemical molecule reveals the dynamic of NMD factors in P-bodies.

The Journal of cell biology : 178 : 1145-60 : [DOI : 10.1083/jcb.200611086](https://doi.org/10.1083/jcb.200611086)