

Publications

2022

1. Cruz Da Silva, E.* , Foppolo, S.* , Lhermitte, B., Ingremeau, M., Justiniano, H., Klein, L., Chenard, M-P., Vauchelles, R., Abdallah, B., Lehmann, M., Etienne-Selloum, N., Dontenwill, M., Choulier, L. (2022). Bioimaging nucleic acid aptamers of different specificities on human glioblastoma tissues highlights tumoral heterogeneity. *Pharmaceutics* (in print, *co-first authors).
2. Abdallah, B., Seguin, C., Aubert, E., Ait BenHassou, H., Choulier, L., Vonthron, C., Schalk, I., Mislin, G., Fournel, S., Pitchon, V.* , Fechter, P.* (2022). Past mastering of metal transformation enabled physicians to increase their therapeutic potential, as assessed by historical medical texts. *J Trace Elem Med Biol.* 73 : 127033. doi: 10.1016/j.jtemb.2022.127033.

2021

3. Cruz Da Silva, E., Mercier, M-C., Etienne-Selloum, N., Dontenwill, M. & Choulier, L. (2021). A systematic review of glioblastoma targeted therapies in Phases II, III, IV clinical trials. *Cancers.* 13(8), 1795. DOI: 10.3390/cancers13081795.
4. Moussaron, A., Jouan-Hureauux, V., Collet, C., Pierson, J., Thomas, N., Choulier, L., Filosa, R., Veran, N., Doyen, M., Arnoux, P., Maskali, F., Dumas, D., Acherar, S., Barberi-Heyob, M., & Frochot, C. (2021). Preliminary study of new gallium-68 radiolabeled peptide targeting. NRP-1 to detect brain metastases by Positron Emission Tomography. *Molecules.* 26(23), 7273. DOI: 10.3390/molecules26237273.
5. Cruz Da Silva, E., Choulier, L., Thevenard-Devy, J., Schneider, C., Carl, P., Rondé, P., Dedieu, S., Lehmann, M. (2021). Role of endocytosis proteins in gefitinib-mediated EGFR internalization in glioma cells. *Cells.* 10(11), 3258. DOI: 10.3390/cells10113258.
6. Entz-Werlé, N., Poidevin, L., Nazarov, P., Poch, O., Lhermitte, B., Chenard, M-P., Burckel, H., Guérin, G., Fuchs, Q., Castel, D., Noel, G., Choulier, L., Dontenwill, M. & Van Dyck, E. (2021). A DNA Repair and Cell-Cycle Gene Expression Signature in Pediatric High-Grade Gliomas: Prognostic and Therapeutic Value. *Cancers.* 13(9):2252. doi: 10.3390/cancers13092252.
7. Blandin, A-F.* , Cruz Da Silva, E.* , Mercier, M-C., Glushonkov, L.O., Didier, P., Etienne-Selloum, N., Dontenwill, M., Choulier, L. & Lehmann, M. (2021). Gefitinib induces EGFR and $\alpha 5\beta 1$ integrin co-endocytosis in glioblastoma cells. *Cell Mol Life Sci.* 78(6):2949-2962. doi: 10.1007/s00018-020-03686-6. (*co-first authors).
8. Etienne-Selloum, N., Prades, J., Bello Roufai, D., Boone, M., Sevestre, H., Trudel, S., Caillet, P., Coutte, A., Desenclos, C., Constans, JM., Martin, S., Choulier, L., Chauffert, B. & Dontenwill, M. (2021). Expression analysis of $\alpha 5$ integrin subunit reveals its upregulation as a negative prognostic biomarker for glioblastoma. *Pharmaceutics* 14(9):882. doi: 10.3390/ph14090882.
9. Sani, S., Messe, M., Fuchs, Q., Pierrevelcin, M., Laquerriere, P., Entz-Werle, N., Reita, D., Etienne-Selloum, N., Bruban, V., Choulier, L., Martin, S. & Dontenwill, M. (2021). Biological relevance of RGD-integrin subtype-specific ligands in cancer. *Chembiochem.* 6;22(7):1151-1160. doi: 10.1002/cbic.202000626.

2020

10. Gries, M., Thomas, N., Daouk, J., Rocchi, P., Choulier, L., Jubreaux, J., Pierson, J., Reinhardt, A., Jouan-Hureauux, V., Chateau, A., Achebar, S., Frochot, C., Lux, F., Tillement, O. & Barberi-Heyob, M. (2020). Multiscale selectivity and in vivo biodistribution of NRP-1-targeted theranostic AGuIX nanoparticles for PDT of glioblastoma. *Int J Nanomedicine.* 15, 8739-8758 <https://doi.org/10.2147/IJN.S261352>.
11. Vautrin-Glabik, A., Devy, J., Bour, C., Baud, S., Choulier, L., Hoarau, A., Dupont-Deshorgue, A., Sellier, C., Brassart, B., Oudart, J-B., Ramont, L., Monboisse, J-C. & Brassart-Pasco, S. (2020). Angiogenesis inhibition by a short 13 amino acid peptide sequence of Tetrastatin, the $\alpha 4(\text{IV})$ NC1 domain of collagen IV. *Front Cell Dev Biol.* 8: 775. doi: 10.3389/fcell.2020.00775.

2019

12. Fechter, P.* , Cruz Da Silva, E.* , Mercier, M.-C., Noulet, F., Etienne-Seloum, N., Guenot, D., Lehmann, M., Vauchelles, R., Martin, S., Lelong-Rebel, I., Ray, A.-M., Seguin, C., Dontenwill, M. & Choulier, L. (2019). RNA aptamers targeting integrin $\alpha 5\beta 1$ as probes for cyto- and histo-fluorescence in glioblastoma. *Mol. Ther. - Nucleic acids* 17, 63-77. (*co-first authors).
13. Cruz Da Silva, E. Dontenwill, M, Choulier, L. & Lehmann, M. (2019). Role of integrins in resistance to therapies targeting growth factor receptors in cancer. *Cancers* 11(5). pii: E692.

2017

14. Mercier, M.-C., Dontenwill, M. & Choulier, L. (2017). Selection of nucleic acid aptamers targeting tumor cell-surface protein biomarkers. *Cancers.* 9(6), pii: E69. doi: 10.3390/cancers9060069.

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16. Blandin, A-F., Noulet, F., Renner, G., Mercier, M-C., Choulier, L., Vauchelles, R., Ronde, P., Carreiras, F., Etienne-Selloum, N., Vereb, G., Lelong-Rebel, I., Martin, S., Dontenwill, M. & Lehmann, M. (2016). Glioma cell dispersion is driven by $\alpha 5$ integrin-mediated cell-matrix and cell-cell interactions. *Cancer Lett.* **376**(2), 328-38. doi: 10.1016/j.canlet.2016.04.007.
17. Renner, G., Janouskova, H., Noulet, F., Koenig, V., Guerin, E., Bär, S., Nuesch, J., Rechenmacher, F., Neubauer, S., Kessler, H., Blandin, A-F, Choulier, L., Etienne-Selloum, N., Lehmann, M., Lelong-Rebel, I., Martin, S. & Dontenwill, M. (2016). Integrin $\alpha 5\beta 1$ and p53 convergent pathways in the control of anti-apoptotic proteins PEA-15 and survivin in high-grade glioma. *Cell Death Differ.* **23**(4), 640-53. DOI: 10.1038/cdd.2015.131

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18. Nominé, Y., Choulier, L., Travé, G., Vernet, T. & Altschuh, D. (2015). Antibody Binding Selectivity: Alternative Sets of Antigen Residues Entail High-Affinity Recognition. *PLoS One.* **10**(12):e0143374.
19. Jung, A.C., Ray, A.M., Ramolu, L., Macabre, C., Simon, F., Noulet, F., Blandin, A-F., Renner, G., Lehmann, M., Choulier, L., Kessler, H., Abecassis, J., Dontenwill, M. & Martin, S. (2015). Caveolin-1-negative head and neck squamous cell carcinoma primary tumors display increased epithelial to mesenchymal transition and prometastatic properties. *Oncotarget.* **6**(39), 41884-901.
20. Vernet, T., Choulier, L., Nominé, Y., Bellard, L., Baltzinger, M., Travé, G. & Altschuh, D. (2015). Spot peptide arrays and SPR measurements: throughput and quantification in antibody selectivity studies *J. Mol. Recognit.* **28**(10), 635-44.

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22. Janouskova, H., Ray, A.M., Noulet, F., Lelong-Rebel, I., Choulier, L., Schaffner, F., Lehmann, M., Martin, S., Teisinger, J. & Dontenwill, M. (2013). Activation of p53 pathway by Nutlin-3a inhibits the expression of the therapeutic target $\alpha 5$ integrin in colon cancer cells. *Cancer Lett.* **336**, 307-18.
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25. Zeder-Lutz, G., Choulier, L., Besse, M., Cousido-Siah, A., Figueras, FXR., Didier, B., Jung, ML., Podjarny, A. & Altschuh, D. (2012). Validation of SPR screening of a diverse chemical library for the discovery of protein tyrosine phosphatase 1b binders. *Anal. Biochem.* **421**, 417-427.
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Patent

Patent WO2020120256 (2018). 'Aptamer and use thereof'

Conference proceedings

1. Burgy, M., Jung, A., Ray, A.-M., Ramolu, L., Macabre, C., Simon, F., Noulet, F., Blandin, A.-F., Renner, G., Lehmann, M., Choulier, L., Kessler, H., Abecassis, J., Dontenwill, M. & Martin, S. (2016). Caveoline-1: potential prognostic and therapeutic interest in VADS tumors. *Bulletin du Cancer*. 103(6), Supplement: 1, S114-5 [Meeting Abstract: PC-04]
2. Choulier, L., Fenat, M., Fechter, P., Blandin, A.-F., Renner, G., Etienne-Seloum, N., Lelong-Rebel, I., Martin, S., Lehmann, M. & Dontenwill, M. (2016). Characterization of RNA aptamers as specific ligands of integrin alpha5 beta1. *European Journal of Cancer* 61(1), Supplement 1, S126 [Meeting Abstract EACR24, Poster Session: Experimental/Molecular Therapeutics, Pharmacogenesis I: 576]
3. Duval, M., Korepanov, A., Fuchsbaauer, O., Fechter, P., Haller, A., Fabbretti, A., Choulier, L., Micura, R., Klaholz, B., Romby, P., Springer, M. & Marzi, S. (2014). Ribosomal protein S1 unfolds structured mRNAs on the ribosome for translation initiation in Escherichia coli. *FEBS J.* **281**. Special Issue: SI Supplement: 1, 290 [Meeting Abstract FEBS EMBO 2014, Paris, France]
4. Dontenwill, M., Janouskova, H., Renner, G., Ray, A.-M., Noulet, F., Choulier, L., Etienne-Selloum, N., Lehmann, M., Lelong-Rebel, I. & Martin, S. (2014). Improved cytotoxic therapy by dual targeting of a5 beta 1 integrin and p53 pathway in glioblastoma. *Eur. J. Cancer*. 50(5), Supplement: 5, S199-S200 [Meeting Abstract: 825 Published: JUL 2014]
5. Choulier, L., Martin-Santamaria, S., Roldos, V., Ramos, A., Altschuh, D., & de Pascual-Teresa, B. (2008). SPR label-free ranking of small molecule negative modulators of adrenomedullin. *European Journal of Cancer Supplements*, **6**, 152. [Meeting abstract, EACR, Lyon]

Other publications grand-public (large audience, articles in french)

1. Antony, P., Fournel, S., Zoll, J., Mantz, JM., Befort, K., Massotte, D., Giégé, P., Céraline, J., Metzger, D., Becker, H., Drouard, L., Florentz, C., Martin, R., Nébigil, C., Potier, S., Schaefer, A., Schaeffer, E., Schuster, C., Bresson, A., Quéméneur, E., Choulier, L., Matt, N., Monassier, L., Lugnier, C., Freysz, L., Hoffmann, J., Dreyfus, H. & Romier, C. (2020). La Société de Biologie de Strasbourg : 100 ans au service de la science et de la société. *Biol Aujourd'hui* 214(3-4), 137-148. doi: 10.1051/jbio/2020018.
2. Choulier, L. (18/07/2020). Peut-on concevoir de nouveaux antibiotiques à partir de molécules bactériennes ? Published on the website of the newspaper 'La Recherche'
3. Choulier, L. (22/08/2019). Entretien avec Agathe Lisé-Pronovost : 'Nous reconstituons l'histoire de l'ancien port maritime de Rome'. Published on the website of the newspaper 'La Recherche'
4. Choulier, L. Rigueur et similitudes à La Recherche. Compte-rendu de l'échange entre chercheurs et journalistes scientifiques, édition 2019.

These three last articles were written following a journalist/researcher exchange (AJSPI/CNRS) (3-7/06/2019 & 15-19/07/2019)