Curriculum Vitae

PERSONAL INFORMATION

Family name, First name: **Sainas Stefano**

Nationality: **Italy**

PERSONAL STATEMENT: Stefano Sainas studied at the University of Torino (Italy) where he received a M.Sc. Chemistry and Pharmaceutical Technology in **2013**. During the University period, he has been Visiting Master Student for 3 months at Department of Drug Design and Pharmacology - University of Copenhagen, (Denmark) under the supervision of Prof. Bente Frølund. In 2013, he won a postgraduate fellowship at University of Torino for 8 months. He was selected as a PhD student in Medicinal Chemistry under the supervision of Prof. Lolli in 2014. Although his main PhD project included the designed and synthesis of *h*DHODH inhibitors, he has effectively collaborated in many different projects. As part of his PhD experience, he spent two months at University of Milan in order to learn flow chemistry techniques, an innovative technology able to increase the productivity and the sustainability of the classical synthetic procedures. Moreover, he spent 9 months at Faculdade de Farmácia - Universidade de Lisboa where he achieved skills in molecular docking by using software such as Moe, Gold, Pymol. Following the PhD, he carried out 6 years of postdoctoral training period at University of Turin in MedSynth group. He is currently Assistant Professor in Medicinal Chemistry at Department Drug Science and Technology, University of Turin. As result of these experiences, he has published 24 papers on international peer-review journals and carried out ten oral presentations at National/International conferences. He has supervised many Medicinal Chemistry Master students during their Master Thesis experiments. On November 13, 2020, he co-founded a UniTo academic Spin-Off called *Drug Discovery and Clinic* (or DDC) s.r.l. (www.ddcpharmaceutical.com).
Publications 19, Citations 276, H-index 10. Oral communications 10, Posters 27.

- ## EDUCATION

- September 2021 – November 2021: Participation to **STARTUP ACADEMY 2021**, an innovative Acceleration Programme tailored to managerial training. The programme is directed to the most promising Italian startups selected for the Start Lab business platform with the aim to provide deep knowledge on key aspects on startups' development through their life cycles, strengthen managerial skills of tech founders, create cross-connections between startups and strategic partners of the Start Lab platform. (https://arneis.com/training-session/)

- 12 April 2021 – 23 November 2021: Participation to **G-Force 2021**, an innovative Acceleration Programme tailored to entrepreneurs in the Life Sciences sectors. The programme aims to accelerate the most talented teams with a high degree of innovation and a relevant technical-scientific profile, with special focus on the business dimension. (https://www.fondazionegolinelli.it/en/area-impresa/g-factor#g-force)

- 31 March 2017: **PhD in Pharmaceutical and Biomolecular Sciences** (EQF level 8), Department of Drug Science and Technology, University of Turin, Italy. Thesis Title: *"Novel Isoster of the Carboxylic Function in the Design of Potent Human Dihydroorotate Dehydrogenase (hDHODH) Inhibitors"*. Supervised by Assistant Professor Marco L. Lolli (@: marco.lolli@unito.it).

- July 2013: **License to practice as pharmacist**

- March 2013: **MSc in Medicinal Chemistry and Pharmaceutical Technology** (EQF level 7), Faculty of Pharmacy, Department of Drug Science and Technology, University of Turin, Italy. Final mark: 110/110 *summa cum laude*. Thesis Title: "*Bioisosteric Modulation of Salicylamide in the Design of Plasmodium Falciparum Dihydroorotate Dehydrogenase (PfDHODH) Inhibitors*". Supervised by Assistant Professor Marco L. Lolli (@: marco.lolli@unito.it).

- July 2005: **Qualified Industrial Chemist** (EQF level 5), I.T.I.S. L. Casale, Turin (Italy). Final Mark 86/100.

- ## CURRENT POSITION

- November 2020 – ongoing: **Co-founder** and **Chief Operating Officer** of UniTo academic Spin-Off *Drug Discovery and Clinic* (or DDC) s.r.l. (www.ddcpharmaceutical.com).

- 1st October 2022 – ongoing: **Assistant Professor** in Medicinal Chemistry (CHIM/08)

- ## PREVIOUS POSITIONS

- 1st May 2022 – 30th September 2022: Fellowship at Department of Drug Science and Technology, University of Turin, Italy. Title of Project: "Sintesi di molecole quali nuovi antifungini contro il patogeno del riso Magnaporthe oryzae". Tutor Prof.ssa Agnese C. Pippione (@: agnesechiara.pippione@unito.it).

- May 2021 – April 2022: **Postdoctoral grant** at Department of Drug Science and Technology, University of Turin, Italy. Title of Project: "Design new *h*DHODH inhibitors for the treatment of Acute Myeloid Leukemia". Supervised by Professor Donatella Boschi (@: donatella.boschi@unito.it).

- May 2020 – April 2021: **Postdoctoral grant** at Department of Drug Science and Technology, University of Turin, Italy. Title of Project: "Design new *h*DHODH inhibitors for the treatment of Acute Myeloid Leukemia". Supervised by Professor Marco L. Lolli (@: marco.lolli@unito.it).

- May 2019 – April 2020: **Postdoctoral grant** at Department of Drug Science and Technology, University of Turin, Italy. Title of Project: "Design new hDHODH inhibitors for the treatment of Acute Myeloid Leukemia". Supervised by Professor Donatella Boschi (@: donatella.boschi@unito.it).

- Sept. 2018 – April 2019: **Postdoctoral grant** at Department of Drug Science and Technology, University of Turin, Italy. Title of Project: "*Targeting Myeloid Differentiation in Leukaemia Using Innovative Human Dihydroorotate Dehydrogenase (hDHODH) Inhibitor*". Supervised by Assistant Professor Marco L. Lolli (@: marco.lolli@unito.it).

- July 2017 – July 2018: **Postdoctoral grant** at Department of Drug Science and Technology, University of Turin, Italy. Title of Project: "*Synthesis of new covalent inhibitors of the prolyl isomerase PIN1 as potential anticancer drugs*". Supervised by Assistant Professor Marco L. Lolli (@: marco.lolli@unito.it).

December 2014 and March 2015: **Visiting PhD Student** at Department of Pharmaceutical Sciences, University of Milan, Italy. Learn principle and use flow chemistry technologies. Supervised by Assistant Professor Lucia Tamborini (@: lucia.tamborini@unimi.it).

6 Feb 2007 – 19 Oct 2007: **Packer** at Lavazza S.p.a. Turin (Italy). Control of machines WCA and Muffets

6 Feb 2006 – 31 Dec 2006: **Chemical reactor operator** at OLON (Ex ANTIBIOTICOS) S.p.a., Settimo Torinese (Italy). Control chemical plants. Sampling of reaction intermediates and final products. Product packaging.

- **FELLOWSHIPS**

- April 2016 – December 2016: **PhD Scholarship, International mobility LLP / Erasmus**. Faculdade de Farmácia - Universidade de Lisboa, Lisbon (Portugal). Supervised by Associate Professor Rita Guedes (@: rguedes@ff.ul.pt).

- June 2013 – December 2013: **Postgraduate Scholarship**, Faculty of Pharmacy, Department of Drug Science and Technology, University of Turin, Italy. Title of Project: "*Development of specific inhibitors of IKKalfa, IKKbeta e NIK kinases*". Supervised by Assistant Professor Marco L. Lolli (@: marco.lolli@unito.it)

- December 2012 – March 2013: **International mobility LLP/Erasmus Placement Scholarship**, School of Pharmaceutical Sciences, Department of Drug Design and Pharmacology, University of Copenhagen, Denmark. Title of Project: "Synthesis of new fluorescent 4-PHP analogues for probing ligand-protein interaction at the GABAA receptor's Orthosteric Binding Site". Supervised by Associate Professor Bente Frølund (@: bfr@farma.ku.dk).

- October 2008 – March 2013: **5 Years Student Fellowship** from Ente Regionale per il Diritto allo Studio Universitario del Piemonte (EDISU Piemonte).

- **PROJECTS**

Project coordinator and Principal Investigator of Project" Identification of small molecule inhibitors of *h*DHODH". AIMS Awards Program - Atomwise

- **THEACHING**

- 2014 – ongoing Supervision of **17 Master Students** at Faculty of Pharmacy, Department of Drug Science and Technology, University of Turin, Italy.
- 2014 – ongoing **Co-Supervisor of 13 Master Thesis** at Faculty of Pharmacy, Department of Drug Science and Technology, University of Turin, Italy.
- 2020 – ongoing: Supervision of 3 PhD students
- AA 2019/2020: 32h lab Assistant and Teaching at course Analisi dei Farmaci II at Department of Drug Science and Technology, Turin.
- AA 2019/2020 and AA2020/2021: 4h teaching at course Metodologie di Sintesi e Sviluppo Farmaceutico at Department of Chemistry, Turin.

- AA 2019/2020: 2h teaching at course Chimica Farmaceutica Avanzata at Department of Drug Science and Technology, Turin.
- AA 2020/2021: 48 h Lab Assistant and teaching at course Analisi dei Farmaci II at Department of Drug Science and Technology, Turin. Supported by contratti per Cicli di esercitazioni di collaborazione a supporto della didattica ai sensi dell'art. 76 dello statuto dell'Università di Torino Anno Accademico 2020/2021
- AA 2020/2021: 60 h Lab Assistant and teaching at course: Synthesis of Drugs" at Department of Drug Science and Technology, Turin. Supported by contract for Cicli di esercitazioni di collaborazione a supporto della didattica ai sensi dell' art. 76 dello statuto dell' Università di Torino.
- AA 2021/2022: 20 h Assistant and teaching at course: Esercitazioni di Fitofaracia e Chimica degli Alimenti" at Department of Drug Science and Technology, Turin. Supported by contract for Cicli di esercitazioni di collaborazione a supporto della didattica ai sensi dell'art. 76 dello statuto dell'Università di Torino.
- AA 2021/2022: 80 h Lab Assistant and teaching at course: Laboratorio di Fitofarmacia e Analisi dei Principi attivi di origine vegetale" at Department of Drug Science and Technology, Turin. Supported by contract for Cicli di esercitazioni di collaborazione a supporto della didattica ai sensi dell'art. 76 dello statuto dell'Università di Torino.

• PERSONAL SKILLS

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	B2	B2	B2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user

Common European Framework of Reference for Languages

Communication skills: Excellent written and verbal communication skills. Confident, articulate, and professional speaking abilities (and experience). Speaking in public, to groups, or via electronic media.
Organisational / managerial skills: Combine patience, determination, and persistence to troubleshoot client issues. Dynamic, results oriented problem solver. Enjoy working as a team member as well as independently. Group facilitating, managing group interactions. Planning, budgeting, goal setting, or scheduling. Organized, goal oriented. Reporting.

Job-related skills: Good skills in Practical Advanced Organic Synthesis techniques. Good skills in Analytical techniques (HPLC and UHPLC, TLC (1D, 2D)). Good skills in compound purification techniques, use of flash chromatography, CombiFlash. Good practice of flow chemistry. Good skills in Structure Characterization using spectroscopic techniques (NMR (1D, 2D), MS, IR, UV). Basic skills in Molecular Modelling (Software used Gold, Moe an PyMoL).

• SOCIAL ENGAGEMENT

- September 2014: Participation at NOTTE dei RICERCATORI in Torino as member of BeeNext s.r.l.
- Member of Organizing Committee for VIII **E**uropean **W**orkshop in **D**rug **S**ynthesis (**2021**)

• AWARDS

- Awarded of Prize Best Poster. **S. Sainas**, P. Circosta, M. Giorgis, A.C. Pippione, M. Marraudino, M. Houshmand, B. Bonaldo, V. Gaidano, A. Cignetti, S. Gotti, G. Saglio, S. Al-Karadaghi, D. Boschi, M.L. Lolli. "A differentiating and apoptotic therapy for Acute Myeloid Leukaemia using MEDS433, a potent human dihydroorotate dehydrogenase inhibitor. In EFMC-ISMC 2021, XXVI EFMC International Symposium on Medicinal Chemistry, Virtual event August 29-September 2, **2021**
- Società Chimica Italiana grant to participate at XXVII Congresso Nazionale della Società Chimica Italiana **2021**
- EFMC grant to participate at EFMC-ISMC 2021 and EFMC-YMCS **2021**.
- DDC s.r.l. awarded by Unicredit with the special Start Lab award at PNI- Premio Nazionale per l'innovazione **2020**.
- DDC s.r.l. awarded of 5,000 € as third place at Start Cup Piemonte/Valle d'Aosta **2020**.
- Awarded of Prize Best Poster Presentation (1000 €). P. Circosta, V. Gaidano, M. Houshmand, **S. Sainas**, A. C.

Pippione, M. Giorgis, V. Tenace, D. Boschi, M. L. Lolli, A. Cignetti, G. Saglio. "Synthetic Lethality in Acute Myeloid Leukemia: A Focus on Dihydroorotate Dehydrogenase Inhibitors" in Clinical Lymphome, Myeloma & Leukemia, September **2020**.

- Awarded of Prize Best Poster. M. Mishina, **S. Sainas**, A. C. Pippione, M. Giorgis, P. Circosta, V. Gaidano, D. Bonanni, A. Cignetti, S. Al-Karadaghi, D. Boschi, G. Saglio and M. L. Lolli. "Design and synthesis of innovative and potent *human* Dihydroorotate Dehydrogenase (*h*DHODH) inhibitors as myeloid differentiation agents in Acute Myelogenous Leukemia (AML)" in European School of Medicinal Chemistry – XXXIX Advanced Course of Medicinal Chemistry and "E.Duranti" national Seminary for PhD Students.
- Certificate released by Wiley of "TOP DOWNLOADED PAPER **2018-2019**" inside Journal of Heterocyclic Chemistry regarding the research article: "Regioselective N-Alkylation of Ethyl 4-Benzyloxy-1,2,3-triazolecarboxylate: A Useful Tool for the Synthesis of Carboxylic Acid Bioisosteres".
- Invited Speaker and travel grant to participate at 13th Biological and Medicinal Chemistry Postgraduate Symposium, Cambridge, United Kingdom, December 13, **2019**.
- Travel grant to participate at EFMC-ACSMEDI MedChem Frontiers 2019. Cracow, Poland 10-13 June **2019**.
- Travel grant to participate at 12th Biological and Medicinal Chemistry Postgraduate Symposium, Cambridge, United Kingdom, December 7, **2018**.
- Travel grant to participate at Italian-Spanish-Portuguese Joint Meeting in Medicinal Chemistry, MedChemSicily2018, Palermo, Italy, July 17 – 21, **2018**.
- 5 Years Student Fellowship (**2008** – **2013**) from Ente Regionale per il Diritto allo Studio Universitario del Piemonte (EDISU Piemonte).

Publications

A1) *Targeting Acute Myelogenous Leukemia using potent human dihydroorotate dehydrogenase inhibitors based on the 2-hydroxypyrazolo[1,5-a]pyridine scaffold: SAR of the biphenyl moiety*. **Sainas, S.**, Giorgis, M., Circosta, P., Gaidano, V., Bonanni, D., Pippione, A. C., Bagnati, R., Passoni, A., Qiu, Y., Cojocaru, C. F., Canepa, B., Bona, A., Rolando, R., Mishina, M., Ramondetti, C., Buccinnà, B., Piccinini, M., Houshmand, M., Cignetti, A., Giraudo, E., Al-Karadaghi, S., Boschi, D., Saglio, G. and Lolli Marco L. *Journal of Medicinal Chemistry* **2021**, 64, 9, 5404–5428. https://doi.org/10.1021/acs.jmedchem.0c01549. IF: 8.039; Q1 (Medicinal Chemistry); n° citazioni: 9.

A2) *Use of the 4-Hydroxytriazole Moiety as a Bioisosteric Tool in the Development of Ionotropic Glutamate Receptor Ligands*. **Sainas, S.**, Temperini, P., Farnsworth, J.C., Yi, F., Møllerud, S., Jensen, A.A., Nielsen, B., Passoni, A., Kastrup, J.S., Hansen, K.B., Boschi, D., Pickering, D.S., Clausen, R.P., Lolli, M.L. *Journal of Medicinal Chemistry* **2019**, *62* (9), 4467-4482. https://doi.org/10.1021/acs.jmedchem.8b01986. IF: 8.039; Q1 (Medicinal Chemistry); n° citazioni: 15.

A3) *Targeting myeloid differentiation using potent 2-hydroxypyrazolo[1,5-a]pyridine scaffold-based human dihydroorotate dehydrogenase inhibitors*. **S. Sainas**, A. C. Pippione, E. Lupino, M. Giorgis, P. Circosta, V. Gaidano, P. Goyal, D. Bonanni, B. Rolando, A. Cignetti, A. Ducime, M. Andersson, M. Järvå, R. Friemann, M. Piccinini, C. Ramondetti, B. Buccinnà, S. Al-Karadaghi, D. Boschi, G. Saglio, and M. L. Lolli. *Journal of Medicinal Chemistry* **2018**, *61* (14), 6034-6055. https://doi.org/10.1021/acs.jmedchem.8b00373. IF: 8.039; Q1 (Medicinal Chemistry); n° citazioni: 38.

A4) *Design, synthesis, biological evaluation and X-ray structural studies of potent human dihydroorotate dehydrogenase inhibitors based on hydroxylated azole scaffolds.* **Sainas S.**, Pippione A.C., Giorgis M., Lupino E., Goyal P., Ramondetti C., Buccinnà B., Piccinini M., Braga R. C., Andrade C. H., Andersson M., Moritzer A., Friemann R., Mensa S., Al-Kadaraghi S., Boschi D. and Lolli M. L. *European Journal of Medicinal Chemistry* **2017**, *129*, 287–302. https://doi.org/10.1016/j.ejmech.2017.02.017. IF: 7.088; Q1 (Medicinal Chemistry); n° citazioni: 38.

A5) Dihydroorotate dehydrogenase inhibitors in anti-infective drug research. Boschi D., Pippione A. C., **Sainas S**., Lolli M. L. *European Journal of Medicinal Chemistry* **2019**, 183 111681. https://doi.org/10.1016/j.ejmech.2019.111681. IF: 7.088; Q1 (Medicinal Chemistry); n° citazioni: 31.

A6) *Hydroxyazole scaffold-based Plasmodium falciparum dihydroorotate dehydrogenase inhibitors: synthesis, biological evaluation and X-ray structural studies.* Pippione A. C., **Sainas S.,** Goyal P., Fritzson I., G. C. Cassiano, Giraudo A., Giorgis M., Tavella T. A., Bagnati R., Rolando B., Caing-Carlsson R., Costa F. T. M., Andrade C. H., Al-Karadaghi S., Boschi D., Friemann R. and Lolli M. L. *European Journal of Medicinal Chemistry* **2019**, *163*, 266-280. https://doi.org/10.1016/j.ejmech.2018.11.044. IF: 7.088; Q1 (Medicinal Chemistry); n° citazioni: 18.

A7) *The Synergism Between DHODH Inhibitors and Dipyridamole Leads to Metabolic Lethality in Acute Myeloid Leukemia.* Gaidano V., Houshmand M., Vitale N., Carrà G., Morotti A., Tenace V., Rapelli S., **Sainas S.**, Pippione A. C., Giorgis M., Boschi D., Lolli M.L., Cignetti A., Saglio G., and Circosta P. *Cancers* **2021**, 13(5), 1003; https://doi.org/10.3390/cancers13051003. IF: 6.575; Q1 (ONCOLOGY); n° citazioni: 10.

A8) *Effective deploying of a novel DHODH inhibitor against herpes simplex type 1 and type 2 replication.* Luganini A. Sibille G., Mognetti B., **Sainas S.**, Pippione A. C., Giorgis M., Boschi D., Lolli M. L., Gribaudo G. *Antiviral Research* **2021**, 189, 105057. https://doi.org/10.1016/j.antiviral.2021.105057. IF: 10.103; Q1 (Pharmacology & Pharmacy), Q1(Virology); n° citazioni: 10.

A9) *The New Generation hDHODH Inhibitor MEDS433 Hinders the In Vitro Replication of SARS-CoV-2 and Other Human Coronaviruses.* Calistri A., Luganini A., Mognetti B., Elder E., Sibille G., Conciatori V., Del Vecchio C., ***Sainas S.***, Boschi D., Montserrat N., Mirazimi A., Lolli M. L., Gribaudo G. and Parolin C. *Microorganisms* **2021**, 9(8), 1731; https://doi.org/10.3390/microorganisms9081731. IF: 4.926; Q2 (Microbiology); n° citazioni: 8.

A10) *N-Acetyl-3-aminopyrazoles Block the non-Canonical NF-κB Cascade by Selectively Inhibiting NIK* A. C. Pippione, **S. Sainas**, A. Federico, E. Lupino, M. Piccinini, M. Kubbutat, J. M. Contreras, C. Morice, A. Barge, A. Ducime, D. Boschi, S. Al-Karadaghi and M. L. Lolli. *MedChemComm* **2018**, *9*, 963-968. https://doi.org/10.1039/C8MD00068A. IF: 5.121; Q2 (Medicinal Chemistry); n° citazioni: 20.

A11) *4-Hydroxy-N-[3,5-bis(trifluoromethyl)phenyl]-1,2,5-thiadiazole-3-carboxamide: a novel inhibitor of the canonical NF-κB cascade.* A. C. Pippione; A. Federico; A. Ducime; S. Sainas; D. Boschi; A. Barge; E. Lupino; M. Piccinini; M. Kubbutat; J.-M. Contreras; C. Morice; S. Al-Karadaghi; M. L. Lolli. *MedChemComm* **2017**, *8*, 1850-1855. https://doi.org/10.1039/C7MD00278E. IF: 5.121; Q2 (Medicinal Chemistry); n° citazioni: 20.

A12) *Substituted 4-hydroxy-1,2,3-triazoles: synthesis, characterization and first drug design applications through bioisosteric modulation and scaffold hopping approaches.* Pippione A. C., Dosio F., Ducime A., Federico A., Martina K., **Sainas S.**, Frølund B., Gooyit M., Janda K. D., Boschi D. and Lolli M. L. *MedChemComm* **2015**, *6*, 1285-1292. https://doi.org/10.1039/C5MD00182J. IF: 5.121; Q2 (Medicinal Chemistry); n° citazioni: 37.

A13) *Hydroxyazoles as acid isosteres and their drug design applications. Part 1: monocyclic systems.* **Sainas S.**, Pippione A. C., Boschi D. and Lolli M. L. L. *Advances in Heterocyclic Chemistry* **2021**, 134, *185-272*. https://doi.org/10.1016/bs.aihch.2020.12.001. IF: 3.606; Q2 (Organic Chemistry); n° citazioni: 4. Book Chapter

A14) *Hydroxyazoles as acid isosteres and their drug design applications. Part 2: bicyclic systems*. Pippione A. C., **Sainas S.**, Boschi D. and Lolli M. L. *Advances in Heterocyclic Chemistry* **2021**, 134, *273-311*. https://doi.org/10.1016/bs.aihch.2020.12.002. IF: 3.606; Q2 (Organic Chemistry); n° citazioni: 5. Book Chapter

A15) *Use of human dihydroorotate dehydrogenase (hDHODH) inhibitors in autoimmune diseases and new perspectives in cancer therapy*. M. L. Lolli; **S. Sainas**; A. C. Pippione; M. Giorgis; D. Boschi; F. Dosio. *Recent Patents on Anti-Cancer Drug Discovery* **2018**; *13* (1):86-105. Doi: 10.2174/1574892812666171108124218. IF: 3.038; Q3 (Oncology), Q2 (Pharmacology & Pharmacy); n° citazioni: 48.

A16) *Regioselective N alkylation of ethyl 4-benzyloxy-1,2,3-triazolecarboxylate: a useful tool for the synthesis of carboxylic acid bioisosteres.* **S. Sainas**, A. C. Pippione, A. Giraudo, K. Martina, F. Bosca, B. Rolando, A. Barge, A. Ducime, A. Federico, J. S. Grossert, R. L. White, D. Boschi and Marco L. Lolli. *Journal of Heterocyclic Chemistry* **2019**, *56* (2), 501-519. https://doi.org/10.1002/jhet.3426. IF: 2.035; Q3 (Organic Chemistry); n° citazioni: 14.

A17) *A New NF-κB Inhibitor, MEDS-23, Reduces the Severity of Adverse Post-Ischemic Stroke Outcomes in Rats*. E. Rubin, A. C. Pippione, M. Boyko, G. Einaudi, **S. Sainas**, M. Collino, C. Cifani, M. L. Lolli, N. Abu-Freha, J. Kaplanski, D. Boschi, and Abed N. Azab. *Brain Sciences* **2022**, 12 (1), 35; https://doi.org/10.3390/brainsci12010035. IF: 3.333; Q3 (Neurosciences); n° citazioni: 3.

A18) *DHODH inhibitors and leukaemia: an emergent interest for new myeloid differentiation agents*. **S. Sainas**, A. C. Pippione, D. Boschi, V. Gaidano, P. Circosta, A. Cignetti, F. Dosio and M. L. Lolli. *Drugs of the Future* **2018**, *43* (11), 823-834. Doi: 10.1358/dof.2018.043.11.2856492. IF: 0.215; Q4 (Pharmacology & Pharmacy); n° citazioni: 7.

A19) *Targeting human onchocerciasis: recent advances beyond ivermectin* (Book Chapter). **Sainas, S.**, Dosio, F., Boschi, D., Lolli, M.L. *Annual Reports in Medicinal Chemistry* **2018**, *51*, 1-38. https://doi.org/10.1016/bs.armc.2018.08.001. IF: 2.628; Q3 (Medicinal Chemistry); n° citazioni: 11.

A20) *New aldo-keto reductase 1C3 (AKR1C3) inhibitors based on the hydroxytriazole scaffold.* Pippione A.C., Kilic-Kurtb Z., Kovachka S., **Sainas S.**, Rolando B., Denasio E., Pors K., Adinolfi S., Zonari D., Bagnati R., Lolli M.L., Spyrakis F., Oliaro-Bosso S., Boschi D. *European Journal of Medicinal Chemistry* **2022**, 237, 114366. https://doi.org/10.1016/j.ejmech.2022.114366. IF: 7.088; Q1 (Medicinal Chemistry); n° citazioni: 0.

A21) *Identification of human dihydroorotate dehydrogenase inhibitor by a pharmacophore-based virtual screening study*. Galati S., **Sainas S.**, Giorgis M., Boschi D., L. Lolli M.L., Ortore G., Poli G., Tuccinardi T. *Molecules* **2022**, 27, 3660. https://doi.org/10.3390/molecules27123660. IF: 4.927; Q2 (*Chemistry, Multidisciplinary*); n° citazioni: 0.

A22) *Dihydroorotate dehydrogenase inhibition reveals metabolic vulnerability in chronic myeloid leukemia.* Houshmand, M., Vitale N., Orso F., Cignetti A., Molineris I., Gaidano V., Sainas S., Giorgis M., Boschi D., Fava C., Passoni A., Gai M., Geuna M., Sora F., Iurlo A., Abruzzese E., Breccia M., Mulas O., Caocci G., Castagnetti F., Taverna D., Oliviero S., Pane F., Lolli M. L., Circosta P., Saglio G. *Cell Death and Disease* **2022** 13:576. https://doi.org/10.1038/s41419-022-05028-9. IF: 9.705; Q1 (Cell Biology); n° citazioni: 0.

A23) *Targeting Acute Myelogenous Leukemia Using Potent Human Dihydroorotate Dehydrogenase Inhibitors Based on the 2-Hydroxypyrazolo[1,5-a]pyridine Scaffold: SAR of the Aryloxyaryl Moiety*. **S. Sainas**., M. Giorgis, P. Circosta, G. Poli, M. Alberti, A. Passoni, V. Gaidano, A. C. Pippione, N. Vitale, D. Bonanni, B. Rolando, A. Cignetti, C. Ramondetti, A. Lanno, D. M. Ferraris, B. Canepa, B. Buccinnà, M. Piccinini, M. Rizzi, G. Saglio, S. Al-Karadaghi, D. Boschi, R. Miggiano, T. Tuccinardi, and M. L. Lolli. J. Med. Chem., **2022**, 65, 19, 12701–12724. DOI: 10.1021/acs.jmedchem.2c00496. IF: 7.446; Q1 (Medicinal Chemistry); n° citazioni: 0.

A24) The Novel *h*DHODH Inhibitor MEDS433 Prevents Influenza Virus Replication by Blocking Pyrimidine Biosynthesis. G. Sibille; A. Luganini, **S. Sainas**, D. Boschi, M. L. Lolli, G. Gribaudo, Viruses **2022**, 14 (10), 2281-2298. DOI: https://doi.org/10.3390/v14102281. IF: 5.818; Q22 (Virology); n° citazioni: 0.

Oral Communications

B1) S. Sainas, P. Circosta, M. Giorgis, M. Marraudino, A. C. Pippione, M. Houshmand, B. Bonaldo, V. Gaidano, A. Cignetti, Al-Karadaghi S., D. Boschi, G. Saglio, M. L. Lolli. MEDS433 a Novel and Potent human Dihydroorotate Dehydrogenase (hDHODH) Inhibitor, Induces Differentiation and apoptosis of Acute Myeloid Leukemia. In: 17th Drug Discovery Innovation Programme, Munich, Germany – October 5-6, 2022.

B2) S. Sainas, A. Luganini, A. Calistri, M. Giorgis, G. Sibille, B. Mognetti, V. Conciatori, C. D. Vecchio, C. Parolin, A. C. Pippione, D. Boschi, A. Mirazimi; G. Gribaudo and M. L. Lolli. *Human Dihydroorotate Dehydrogenase Inhibitor MEDS443: a magic bullet against Coronaviruses. In: XXVII EFMC International Symposium on Medicinal Chemistry*

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Poster

C1) Vigato, C.; Pippione, A.C.; Mannella, I.; Iakovleva M., Sainas, S.; Oliaro Bosso S.; Rolando, B.; Kovachka, S; Spyrakis, F.; Lolli, M.L. and Boschi, D. New hydroxybenzoazole inhibitors of aldo-keto reductase 1c3 (AKR1C3): disclosure of a sar investigation to target prostate cancer. In: XXVII EFMC International Symposium on Medicinal Chemistry (EFMC-ISMC 2022), Nice, France – September 4-8, **2022**. (Poster Presentation).

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- **FLASH POSTER PRESENTATION**

1) C. Vigato, S. Sainas, M. Giorgis, P. Circosta, A. Passoni, A. C. Pippione, R. Bagnati, G. Saglio, D. Boschi, M. L. Lolli. Targeting myeloid leukemias using human Dihydroorotate Dehydrogenase inhibitors based on 2-hydroxypyrazolo[1,5-a]pyridine scaffold: overcoming of metabolic issues. In EFMC-YMCS 2021 8th EFMC Young Medicinal Chemists' Symposium, *Virtual event* September 9-10, **2021**

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4) N. Villella, A. C. Pippione, S. Sainas, D. Boschi, R. Friemann, A. Gimenéz, E. Salamanca, and M. L. Lolli. Design, synthesis and co-crystallization of new *Plasmodium falciparum* dihydroorotate dehydrogenase inhibitors based on hydroxypyrazole scaffold. In: Merck Young Chemist Symposium 2019 (MYCS-2019), Rimini, November 25-27, **2019**.

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6) Sainas S., Pippione A. C., Carnovale I. M., Giraudo A., Giorgis M., Braga R. C., Andrade C. H., Villella N., Friemann R., Piccinini M., Lupino E., Al-Kadaraghi S., Boschi D. and Lolli M. L. (2016). Targeting the human Dihydroorotate Dehydrogenase (hDHODH) by a Scaffold Hopping Bioisosteric approach using Hydroxylated Pentatomic Heterocycles. In: EFMC-YMCS 2016 3rd EFMC Young Medicinal Chemist Symposium. Manchester, England, September 1 - 2, 2016, p. 54-54.

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