

## CURRICULUM VITAE ET STUDIORUM

Name ANGELA CORONA Ph.D.

Dept. Life and Environmental Sciences, Biomedical Section  
Molecular Virology Laboratory, University of Cagliari, Cittadella Universitaria SS554  
09042 Monserrato (CA) Italy, Phone +39-070-675-4530  
Email: [angela.corona@unica.it](mailto:angela.corona@unica.it)  
PEC: [ang.corona@pec.it](mailto:ang.corona@pec.it)

### Scientific activity

11-2023/today	Associate Professor, Department of Life and Environmental Sciences, Section of Molecular Virology, University of Cagliari (Italy). 05/BIOS-15 - MICROBIOLOGIA BIOS-15/A - Microbiologia.
11-2020/10-2023	RTD-B, Department of Life and Environmental Sciences, Section of Molecular Virology, University of Cagliari (Italy). SSD BIO-19.
10-2019/10-2020	Post doc fellow at the Department of Life and Environmental Sciences, , University of Cagliari (Italy). Project: L.R. 7/2017, (FSC) 2014-2020 "Multi-target approach for the development of new inhibitors of HIV replication" Codice: RASSR17032 CUP F76C18000800002.
10-2018/10-2019	Post doc fellow at the Department of Life and Environmental Sciences, , University of Cagliari (Italy). Project: POR FESR 2014-2020 " Development of innovative drugs against endogenous retroviruses, exogenous viruses and tumors of particular relevance in the Sardinian Region " CUP: G87H18000020006
06/08-2017	Research fellow at IrsiCaixa AIDS Research Institute, Hospital Germans Trias i Pujol, in Barcelona.
10-2016/10-2018	Post doc fellow at the Department of Life and Environmental Sciences, , University of Cagliari (Italy). Project: RAS LR 07/2007, dal titolo " Development of inhibitors of the Ebola virus evasion systems to evade the innate immune response "grant n. CRP-78711/F72115000900002.
10-2015/10-2016	Post doc fellow at the Department of Life and Environmental Sciences, , University of Cagliari (Italy). Project: PRIN, " Multi-target molecular approach to block HIV-1 replication" grant no. 2010W2KM5L_003
11-2014/06-2015	Research collaborator at the Department of Life and Environmental Sciences, , University of Cagliari (Italy). Project: "Innovative targets for the identification of new inhibitors of the early stages of HIV-1 replication: functional studies and development of new inhibitors" L.R.7/2007.2010.
11-2013/01-2014	Guest researcher internship. Biophotonique des interactions moléculaires, Laboratoire de Biologie et Pharmacologie Appliquée (LBPA). Ecole Normale Supérieure Cachan cedex France.
11-2011/03-2012	Guest researcher internship. HIV Drug Resistance Program, Center for Cancer Research, National Cancer Institute, National Institutes of Health, Frederick, MD –USA.
02-2011/04-2014	PhD student in Molecular Virology in the "Human and Environmental Biology and Biochemistry School" at the University of Cagliari (Italy).
02-2009/04-2010	Master Student internship at the Department of Chemical and Pharmaceutical Technologies, University of Cagliari, Pharmaceutical Chemistry Lab.

### Granted Research Projects:

2024/ present	FDS2022 Sardinia Foundation Research Project. Hit to lead optimization and characterization of inhibitors targeting SARS-CoV-2 replication machinery Role: <b>Principal investigator</b>
2024/present	PRIN2022 2022TLZRXT - DEvelopment of pan-coronavirus agENTs targeting host and viral heliCasEs (DEFENCE). Role: <b>Principal investigator</b>
2021- 2022	"A Small molecule To Overcome Present and future COronaVirus Diseases" FISR2020IP_03296 STOP-COVID <b>Unit Leader</b>
2021 – 2023	NanoVET4CoV." NanoVETtori Ibridi a base di idrossiclorochina come agenti terapeutici per Sars-COV-2" <b>Unit Leader</b> Sardegna Ricerche grant.

### Research collaborator in Scientific Projects:

2024/present	StartUP project DM737 Identification And Biological Evaluation Of Broad-Spectrum Inhibitors Of Ns2b/Ns3 Protease To Fight Flavivirus Outbreaks Role: Unit research leader
2024/present	HORIZON-HLTH-2023-DISEASE-03-04: call. — [Pandemic preparedness and response: Broad spectrum anti-viral therapeutics for infectious diseases with epidemic potential] AVITHRAPID: Antiviral Therapeutics For Rapid Response Against Pandemic Infectious Diseases. Role: Unit research member

2023/present	NextGenerationEU- PNRR call- "One Health Basic and Translational Actions Addressing Unmet Needs on Emerging Infectious Diseases (INF-ACT) Role: Unit research member -INF-ACT research consortium
2021-2023	L.R. 19/96 – call: 2021(TECNOCOVID) Combinazione di bioattivi naturali e nanotecnologie per prevenire e contenere il contagio da COVID-19. Role: Unit research member
2020- 2021	"Development of compounds inhibiting VP35 block of the antiviral innate immune response" Fondazione Sardegna – Università di Cagliari project. Role: Unit research member
2020-2021	EU-H2020-SC1-PHE-CORONAVIRUS-2020 granted "EXaScale smArt pLatform Against paThogEns for Corona Virus (EXSCALATE4CoV)" Unit member.
2020-2021	"Identify new therapeutic agents for the treatment of respiratory infection from SARS-CoV-2", Unit member, Sardegna Ricerche grant.
2020- 2021	"Use of Raman spectroscopy for the detection of SARS-CoV-2 and design of a system for reliable rapid measurements", Unit member, Sardegna Ricerche grant.
2019-2021	"Multitarget approach to develop novel inhibitors of HIV replication", Regione Autonoma della Sardegna (RAS) project. Unit member.
2018-2020	"Discovery, design and development of STING agonists as immune modulators with antiviral and anticancer activities", Fondazione Sardegna – Università di Cagliari project. Unit Member,
2017- 2020	"Development of innovative drugs against endogenous retroviruses, exogenous viruses and tumors particularly relevant in Sardinia" Regione Autonoma della Sardegna (RAS) project. Unit Member.
2015-2018	"Development of inhibitors of Ebola Virus innate immune system evasion" Regione Autonoma della Sardegna (RAS) project. Unit Member.
2012-2016	"A multi-target molecular approach to block HIV-1 replication" PRIN 2010-11 project . Unit Member.
2012-2015	"Innovative targets for the identification of new inhibitors of the early phases of the HIV-1 replication: functional studies and new inhibitors development" Regione Autonoma della Sardegna (RAS) project. Unit Member.
2012-2015	"Biotech Sardinian plants". Unit Member, Regione Autonoma della Sardegna (RAS) and Regione Lombardia project.

#### **Education:**

**2018 National Scientific Habilitation** call D.D. 1532/2016 Scientific sector 05/I2 MICROBIOLOGY Associated Professor, validity form 10/04/2018 to 10/04/2024 (Italian law: art. 16, comma 1, Legge 240/10)

**2014 European Ph.D.** at "Human and Environmental Biology and Biochemistry School" of University of Cagliari (Italy). Thesis: "Characterization of the mechanism of action of new HIV-1 reverse transcriptase-associated ribonuclease H inhibitors". Score: Excellent.

**2013 Certificate of High level security biology lab (L3) training** at UMR 8113 – CNRS Laboratoire de Biologie et Pharmacologie Appliquée (LBPA). Ecole Normale Supérieure Cachan France

**2012 Certificate of Blood-borne pathogens training** at Center of Excellence in HIV/AIDS and Cancer Virology, Center for Cancer Research National Cancer Institute. Frederick MD USA

**2010 Master Degree in Chemistry and Pharmaceutical Technologies**, University of Cagliari. 110/110 Summa cum laude, Thesis: Synthesis of new 2,5-diaril-3-acetil-2,3-didrossadiazoles derivatives as selective cyclooxygenase-2 inhibitors.

**2004 High school degree in classical studies** Score: 100/100

#### **Membership of scientific societies:**

2023/present	International Society for Antiviral Research, Board of Directors
2017	Società Italiana di Virologia – Italian Society for Virology - SIV-ISV
2016	American Society of Microbiology
2011	Italian Society of Virology
2014	Italian Society of General Microbiology and Microbial e Biotechnologies
2014	International Society for Antiviral Research

#### **Awards:**

2018 First Place in the Post-Doc Category at the 31st International Conference on Antiviral Research, in Porto

2017 Chu Family Foundation (CFF) Scholarship for Women Scientists, Awarded by International Society for Antiviral Research (ISAR)

2016 "Cecilia Cioffrese" 2016- malattie virali award, by Fondazione Carlo Erba.

#### **Service activity for the community:**

- 2022 Member of Faculty Board of the Doctorate in Life, Environment and Medication Sciences at University of Cagliari
- 2020 Member of the Faculty of "Biology and Pharmacy", University of Cagliari

**Outreach activities:**

1. Focus Sulla Ricerca Scientifica Pubblica E Privata Per Affrontare E Prevenire Nuovi Eventi Pandemici. 30 novembre 2023 Parco Scientifico e tecnologico. della Sardegna – Pula Organizing Committee. Prof.ssa Angela Corona, Prof. Enzo Tramontano (Università di Cagliari) Prof. Vincenzo Summa (Università di Napoli) Dott.ssa Francesca Caboi, Dott. Giuseppe Serra (Sardegna Ricerche)
2. Vaccini contro SARS-CoV-2 cosa sono e come funzionano. Dr. Angela Corona. Evento Streaming. Associazione Culturale Medicina e Persona, venerdì 30 Aprile 2021 ore 19:30

**Meeting organization:**

- 2024 Organizing committee 7<sup>th</sup> International Summer School "Innovative approaches for the identification of antiviral agents - 2024"
- 2023 Organizing committee 2023. XXXIV SIMGBM Congress. Cagliari. September 21-24, 2023
- 2022 Organizing committee 6<sup>th</sup> International Summer School "Innovative approaches for the identification of antiviral agents - 2022"
- 2021 Organizing committee 5<sup>th</sup> International Summer School "Innovative approaches for the identification of antiviral agents - 2021"
- 2018 Organizing committee 4<sup>th</sup> International Summer School "Innovative approaches for the identification of antiviral agents - 2018"

**Chaired sessions:**

1. 2024 IUMS Congress will be in Florence (Italy) in October 23-25, Microorganisms for sustainable solutions: environmental & clinical implementations. Session: Fighting Viral diseases 24.10.2024 11:30-13:00
2. 7<sup>th</sup> Edition of the International Summer School "Innovative approaches for the identification of antiviral agents", Pula 23-27 September 2024, Italy
3. 36<sup>th</sup> International Conference on Antiviral Research (ICAR) 2023. Wednesday, March 15, 2023 Late-breaking Oral Presentations Chairs Robert Jordan and Angela Corona
4. 6<sup>th</sup> Edition of the International Summer School "Innovative approaches for the identification of antiviral agents", Pula 22-26 September 2022, Italy

**Panelist sessions, selected oral communications:**

1. **Corona A-** Identification of Pan-hCoV inhibitors targeting viral helicases 9th National Congress Of The Italian Society For Virology" Turin 22 – 24 June 2025
2. **Corona A. Plenary Lecture:** Exploiting Ebola virus suppression of the innate immune activation as target for drug development 51 SIM conference, Microbiology 2023 joint meeting Cagliari 21-27 Settembre 2023
3. **Corona A,** Madia V.M., De Santis R, Manelfi C., Emmolo R, Ialongo D., Patacchini E., Messori A., Amatore D., Faggioni G., Artico M., Iaconis D., Talarico C., Di Santo R., Lista F., Costi R., Tramontano E "DKA inhibitors of Nsp13 of SARS-CoV-2 block viral replication 7th National Congress Of The Italian Society For Virology" Brescia 25 – 27 Giugno 2023
4. **Corona A,** Strayer DR, Distinto S, Daino GL, Paulis A, Tramontano E, William M. Mitchell, Ebola Virus Disease: In Vivo Protection Provided by the PAMP Restricted TLR3 Agonist Rintatolimod and Its Mechanism of Action 36<sup>th</sup> International Conference on Antiviral Research (ICAR) 2023
5. **Corona A. Plenary Lecture** Exploiting Viral Suppression of Innate Immune Activation as Target for Drug Development Fifth National Congress of Virology with International Participation/Days of Virology in Bulgaria, Sofia, October 2nd – 4th, 2019
6. **Corona A,** Frau A., Sanna C., Salata C., Rigano D., Daino G.L., Chianese G., Formisano C., Tagliatalata Scafati O., Mirazimi A., Tramontano E. 1,5-dicaffeoylquinic acid, from Onopordon Illiricum, blocks EBOV replication counteracting the IFN- $\beta$  production inhibition by the VP35 Ebola virus protein. 2nd National Congress of the Italian Society for Virology One Virology One Health – Rome, November 28-30, 2018

7. **Corona A**, Rogolino D, Ballana E, Carcelli M, Grandi N, José Esté, J, Tramontano E, N-acylhydrazones as RNase H Selective Inhibitors Active against Replication of HIV-1 NNRTIs Resistant Variants 31st International Conference on Antiviral Research (ICAR),Alfândega Congress Centre in Porto, Portugal. Dall'11 al 15 June 2018. **Shotgun selected Oral presentation**
8. **Corona A**, Poongavanam V, Grandi N, Kongsted J, Esposito F and TramontanoE. A Structure-Based Virtual Screening and site directed mutagenesis approach identify new promising HIV-1 RNase H inhibitors Microbiology 2017 33th SIMGBM conference, Palermo 17-20 September 2017
9. **Corona A**, Delelis O, Meleddu R, Subra F, Esposito F, Distinto S, Maccioni E, and Tramontano E Nitro-Hydrazoindolin-2-One Derivatives Inhibit HIV-1 Replication Exhibiting A Multi-Target Mechanism of Action. SIV-ISV 2017. Milano 25-28 June 2017
10. **Corona A**, R Meleddu, O Delelis, F Esposito, S Distinto, E Maccioni, E Tramontano. Exploring the hydrazoindolin-2-one based scaffold to develop Ribonuclease H/DNA polymerase HIV-1 RT dual inhibitors. Innovative Approaches for Identification of Antiviral Agents Summer School (IAAASS). Margherita di Pula September 28th – October 3th 2016
11. **Corona A**, A Schneider, J Bodem, Bern Buchholz, E Maccioni, R. Di Santo, E. Tramontano, B.M. Wöhr. Phenotypic characterization of HIV-1 reverse transcriptase associated activities of a multiresistant subtype AG strain. Microbiology 2015 31th SIMGBM conference 23-26 September 2015
12. **Corona A**, F. S. Di Leva, F. Esposito, R. Di Santo, R. Costi, L.Pescatori, S.Cosconati, E.Novellino and E. Tramontano. Mutagenesis of HIV-1 reverse transcriptase ribonuclease H domain defines residues contributing to ribonuclease h activity inhibition by diketo acids. European Congress of Virology 11-14 September 2013 Lyon, France.
13. **Corona A**, R. Meleddu, F. Esposito, S. Distinto, E. Maccioni S. Le Grice and E. Tramontano The mechanism of action of new hiv-1 reverse transcriptase dual inhibitors explored by kinetic studies and site direct mutagenesis. Innovative Approaches for Identification of Antiviral Agents Summer School (IAAASS). Margherita di Pula September 30th – October 4th 2012
14. **Corona A**, R. Meleddu, F. Esposito, S. Distinto, E. Maccioni, S. Le Grice and E. Tramontano. Site direct mutagenesis and kinetic studies to explore the mechanism of action of isatin derivatives as HIV-1 reverse transcriptase dual inhibitors. RNase H meeting Edinburgh, UK. Wednesday 5 -Friday 7 September 2012

**Participation to Journal Activities:**

2024-today	ACS Infectious Disease Early Career Board Member
2021-today:	Board of Review Editor Experimental Pharmacology and Drug Discovery (antiviral section)
2021-today	Reviewer Frontiers in Microbiology Antivirals and Vaccines
2011-today	Peer reviewing collaborations for several International Journals.

**Peer-reviewed publications:**

ORCID ID: 0000-0002-6630-8636

Scopus ID 54079269600

1. Zhang Y, Wang R, Bu Y, **Corona A**, Dettori L, Tramontano E, Pannecouque C, De Clercq E, Wang S, Meng G, Design, Synthesis and Biological Evaluation of 3-Hydrazonoindolin-2-one Derivatives as Novel HIV-1 RNase H Inhibitors Chen FE.Molecules. 2025 Apr 22;30(9):1868. doi: 10.3390/molecules30091868.PMID: 40363675
2. Madia VN, Emmolo R, Patacchini E, Amatore D, Maloccu S, Ialongo D, Albano A, Ruggieri G, Cara E, Zarbo L, Messori A, De Santis R, Amoroso A, Lista F, Esposito F, Tramontano E, **Corona A**, Di Santo R, Costi R. Structure-Activity Relationships of New 1-Aryl-1H-Indole Derivatives as SARS-CoV-2 Nsp13 Inhibitors.ChemMedChem. 2025 May 5:e2500205. doi: 10.1002/cmcd.202500205. Online ahead of print.PMID: 40322961
3. **Corona A**, Cagno V, Grandi N, Fanunza E, Esposito F, Seley-Radtke KL, Tramontano E Meeting report: Seventh summer school on innovative approaches for identification of antiviral agents (IAAASS). Antiviral Res. 2025 Jun;238:106170. doi: 10.1016/j.antiviral.2025.106170. Epub 2025 Apr 18.PMID: 40252780
4. Onali A, Sanna E, Lupia A, Secci D, Atzeni G, Demuru L, Angeli A, Cottiglia F, Meleddu R, Emmolo R, **Corona A**, Maccioni E, Supuran CT, Distinto S.ASynthesis and Evaluation of Thiazolidinone-Isatin Hybrids for Selective

Inhibition of Cancer-Related Carbonic Anhydrases. *ACS Med Chem Lett.* 2025 Mar 22;16(4):560-566. doi: 10.1021/acsmchemlett.4c00599. eCollection 2025 Apr 10. PMID: 40236560 Free PMC article.

- Singh S, Srivastava KS, Gahtori P, Anand AA, Samanta SK, Kumawat MK, Bhat HR, **Corona A**, Tramontano E, Mitra D, Singh UP Design, and synthesis of 2,4-thiazolidinedione substituted 1,3,5-triazine derivatives as anti-HIV agent via inhibition of reverse transcriptase along with anti-SARS CoV-2, antibacterial and antibiofilm activity. *Bioorg Chem.* 2025 Jun 15;160:108427. doi: 10.1016/j.bioorg.2025.108427. Epub 2025 Mar 31. PMID: 401870297
- Zhang K, Xing T, Ding L, Pannecouque C, De Clercq E, **Corona A**, Dettori L, Tramontano E, Wang S, Chen FE. Deuteration Strategy-Inspired Design of Novel Diarylpyrimidine Derivatives as Potent Non-Nucleoside Reverse Transcriptase Inhibitors Featuring Improved Efficacy, Selectivity, and Druggability. *J Med Chem.* 2025 Apr 24;68(8):8564-8577. doi: 10.1021/acs.jmedchem.5c00202. Epub 2025 Apr 5. PMID: 401865648
- Zian D, Iaconis D, Nenci S, Crusco A, Tawde S, Sodano M, Vitalone R, Raje A, Palamini M, Carettoni D, Molteni A, Manelfi C, Tazzari V, Beccari AR, Malune P, Maloccu S, Paulis A, **Corona A**, Nieddu S, Coletti S, Scarabottolo L, Tramontano E, Esposito F, Catalani M. The efficiency of high-throughput screening (HTS) and in-silico data analysis during medical emergencies: Identification of effective antiviral 3CLpro inhibitors. *Antiviral Res.* 2025 May;237:106119. doi: 10.1016/j.antiviral.2025.106119. Epub 2025 Feb 18. PMID: 39978553
- Tu NQ, Richetta C, Putzu F, Delelis O, Ahmed K, Masand VH, Schobert R, Tramontano E, **Corona A**, Biersack B. Identification of HIV-1 Reverse Transcriptase-Associated Ribonuclease H Inhibitors Based on 2-Hydroxy-1,4-naphthoquinone Mannich Bases. *Molecules.* 2025 Jan 23;30(3):495. doi: 10.3390/molecules30030495
- Chen XM, Pannecouque C, De Clercq E, Lian YX, **Corona A**, Dettori D, Tramontano E, Wang S, Chen FE, Structure-Based Discovery of Novel Diarylpyrimidines as Potent and Selective Non-Nucleoside Reverse Transcriptase Inhibitors: From CH(CN)-Biphenyl-Diarylpyrimidines to C=NNH2-Biphenyl-Diarylpyrimidines, *European Journal of Medicinal Chemistry*, 2025, 117271, ISSN 0223-5234, <https://doi.org/10.1016/j.ejmech.2025.117271>.
- Huang WJ, Pannecouque C, De Clercq E, **Corona A**, Maloccu S, Tramontano E, Wang S, Chen FE. Expanding the Solvent/Protein Region Occupation of the Non-Nucleoside Reverse Transcriptase Inhibitor Binding Pocket for Improved Broad-Spectrum Anti-HIV-1 Efficacy: from Rigid Phenyl-Diarylpyrimidines to Flexible Hydrophilic Piperidine-Diarylpyrimidines. *J Med Chem.* 2024 Nov 5. doi: 10.1021/acs.jmedchem.4c02413.
- Thiol-Reactive or Redox-Active: Revising a Repurposing Screen Led to a New Invalidation Pipeline and Identified a True Noncovalent Inhibitor Against Papain-like Protease from SARS-CoV-2 10. *ACS Pharmacol. Transl. Sci.* 2025,8,66-77 1021/acspsci.4c00325
- Puxeddu M, Donalisio, M; Bugert, J.; **Corona, A.**; Cocomazzi, P.; Milani, M; Hucke, F.; Arduino, I.; Esposito, F., Moretti, P.; Ortore, M.; Nalli, M.; Manetto, S; Mazzocanti, G.; Bigogno, C.; Dondio, G.; Sciò, P.; Coluccia, A.; Fracella, M.; Antonelli, G.; Lembo, D.; Tramontano, E.; Silvestri, R.; Mastrangelo, E.; La Regina, G. "4-(3-Phenylsulfonylindol-2-yl)-1-(pyridin-2-yl)piperazinyl-methanones as Potent Inhibitors of both SARS-CoV-2 and HCoV-OC43 Viruses" *ACS Infectious Diseases* 10.1021/acsinfecdis.4c00108
- Paulis A, Onali A, Vidalain PO, Lotteau V, Jaquemin C, **Corona A**, Distinto S, Delogu GL, Tramontano E. Identification of new benzofuran derivatives as STING agonists with broad-spectrum antiviral activity. *Virus Res.* 2024 Jul 8;347:199432. doi: 10.1016/j.virusres.2024.199432.
- Zhao KX, Zhang YY, Wang JS, Wang S, **Corona A**, Maloccu S, Tramontano E, Pannecouque C, De Clercq E, Meng G, Wang L, Chen FE. Design, synthesis and biological evaluation of Thiazolo[3, 2-a]Pyrimidine derivatives as novel RNase H inhibitors. *Bioorg Chem.* 2024 Jul;148:107495. doi: 10.1016/j.bioorg.2024.107495
- Messore A, Malune P, Patacchini E, Madia VN, Ialongo D, Arpacioğlu M, Albano A, Ruggieri G, Saccoliti F, Scipione L, Tramontano E, Canton S, **Corona A**, Scognamiglio S, Paulis A, Suleiman M, Al-Maqtari HM, Abid FMA, Kawsar SMA, Sankaranarayanan M, Di Santo R, Esposito F, Costi R. New Thiazolidine-4-One Derivatives as SARS-CoV-2 Main Protease Inhibitors. *Pharmaceuticals (Basel).* 2024 May 17;17(5):650. doi: 10.3390/ph17050650
- Zhu XD, **Corona A**, Maloccu S, Tramontano E, Wang S, Pannecouque C, De Clercq E, Meng G, Chen FE. Structure-Based Design of Novel Thiazolone[3,2-a]pyrimidine Derivatives as Potent RNase H Inhibitors for HIV Therapy. *Molecules.* 2024 May 3;29(9):2120. doi: 10.3390/molecules29092120
- Kuzikov M, Reinshagen J, Wycisk K, **Corona A**, Esposito F, Malune P, Manelfi C, Iaconis D, Beccari A, Tramontano E, Nowotny M, Windshügel B, Gribbon P, Zaliani A Drug repurposing screen to identify inhibitors of the RNA

polymerase (nsp12) and helicase (nsp13) from SARS-CoV-2 replication and transcription complex. *Virus Res.* 2024 May;343:199356. doi: 10.1016/j.virusres.2024.199356.

18. **Corona, A.**, Ganesan, S., Matange, N., Wicht, K. Call for Papers: Infectious Diseases Research in the Global South: Treatments and Treatment Failures *ACS Infect. Dis.* 2024, 10, 4015–4016 doi/10.1021/acscinfecdis.4c00942
19. Boniardi, I., **Corona, A.**, Basquin, J., Basquin C, Milia J, Tramontano, E., Zinzula, L. Suramin inhibits SARS-CoV-2 nucleocapsid phosphoprotein genome packaging function *Virus Research*, 2023, 336, 199221
20. Fanunza, E., **Corona, A.** Editorial: Viruses, innate immunity, and antiviral strategies: from basic research to clinical applications. *Frontiers in Cellular and Infection Microbiology*, 2023, 13, 1268363
21. **Corona A**, Madia VN, De Santis R, Manelfi C, Emmolo R, Ialongo D, Patacchini E, Messori A, Amatore D, Faggioni G, Artico M, Iaconis D, Talarico C, Di Santo R, Lista F, Costi R, Tramontano E. Diketo acid inhibitors of nsp13 of SARS-CoV-2 block viral replication. *Antiviral Res.* 2023 Aug 9;217:105697. doi: 10.1016/j.antiviral.2023.105697.
22. Asthana A; **Corona A**; Shin WJ; Kwak MJ; Gaughan C; Tramontano E; Jung JU; Schobert R; Kant Jha B; Silverman RH; Biersack B. Analogs of the Catechol Derivative Dynasore Inhibit SARS-CoV-2 nsp14 Exoribonuclease and Virus Replication *Viruses* 2023 : doi.org/10.3390/v15071539
23. Lai JY, **Corona A**, Ng CL, Tramontano E, Choong YS, Lim TS. Naïve antibody library derived monoclonal antibody against VP35 of Ebola virus. *Int J Biol Macromol.* 2023 Jun 26:125571
24. **Corona A**, Meleddu R, Delelis O, Subra F, Cottiglia F, Esposito F, Distinto S, Maccioni E and Tramontano E nitro-3-(2-(4-phenylthiazol-2-yl)hydrazineylidene)indolin-2-one derivatives inhibit HIV-1 replication by a multi-targets mechanism of action *Front. Cell. Infect. Microbiol Sec. Virus and Host Volume 13 - 2023* | doi: 10.3389/fcimb.2023.1193280
25. Al Nasr IS, **Corona A**, Koko WS, Khan TA, Ben Said R, Daoud I, Rahali S, Tramontano E, Schobert R, Amdouni N, Biersack Versatile anti-infective properties of pyrido- and dihydropyrido[2,3-d]pyrimidine-based compounds. *B. Bioorg Med Chem.* 2023 Jun 15;90:117376. doi: 10.1016/j.bmc.2023.117376. Online ahead of print. PMID: 37336083
26. Porcu S, Maloccu S, **Corona A**, Hazra M, David TC, Chiriu D, Carbonaro CM, Tramontano E, Ricci PC Visible Light-Mediated Inactivation of H1N1 Virus Using Polymer-Based Heterojunction Photocatalyst, *Polymers* 2023, 15(11), 2536; <https://doi.org/10.3390/polym15112536>
27. Iaconis D, Caccuri F, Manelfi C, Talarico C, Bugatti A, Filippini F, Zani A, Novelli R, Kuzikov M, Ellinger B, Gribbon P, Riecken K, Esposito F, **Corona A**, Tramontano E, Beccari AR, Caruso A, Allegretti M. DHFR Inhibitors Display a Pleiotropic Anti-Viral Activity against SARS-CoV-2: Insights into the Mechanisms of Action. *Viruses.* 2023 May 9;15(5):1128. doi: 10.3390/v15051128. PMID:37243214; PMCID: PMC10221469.
28. Ambrosio FA, Costa G, Romeo I, Esposito F, Alkhatib M, Salpini R, Svicher V, **Corona A**, Malune P, Tramontano E, Ceccherini-Silberstein F, Alcaro S, Artese A. Targeting SARS-CoV-2 Main Protease: A Successful Story Guided by an In Silico Drug Repurposing Approach. *J Chem Inf Model.* 2023 May 25;63(11):3601–13. doi: 10.1021/acs.jcim.3c00282. Epub ahead of print. PMID:37227780; PMCID: PMC10237300.
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