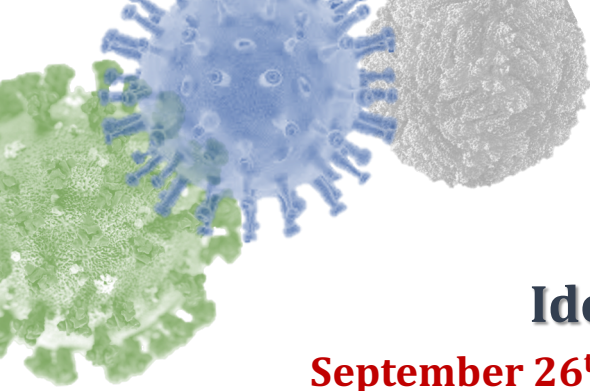




6th IAAASS

Innovative Approaches for Identification of Antiviral Agents

September 26th -30th 2022, Pula (CA), Sardinia, Italy

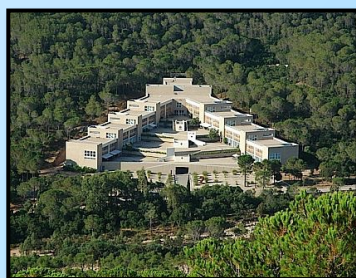
- **Informal** and **interactive** international environment targeted to **early-stage researchers**
- Presentation of **most advanced methods** for the development of **novel antiviral agents**
- Plenary lectures reviewing **viral target identification** and **drug discovery** from **leading internationally-recognized experts** in the fields of virology, biochemistry, molecular modeling and medicinal chemistry
- Afternoon sessions dedicated to **poster** and **oral presentations from participants**
- **Daily thematic discussion groups** stimulating interactions between early researchers and senior scientists

Confirmed speakers

 Graciela Andrei (Leuven)	Massimo Palmarini (Glasgow) 
 Kathie Seley-Radtke (Baltimore)	Andrea Brancale (Prague) 
 Johan Neyts (Leuven)	Ben Berkhout (Amsterdam) 
 Jean Nachega (Pittsburgh)	Priscilla Yang (Stanford) 
 Vincenzo Summa (Napoli)	Reuben Harris (San Antonio) 
 Stefan Pöhlmann (Göttingen)	Enzo Tramontano (Cagliari) 
 Chris Meier (Hamburg)	Branka Horvat (Lyon) 
 Albrecht Von Brunn (Munich)	Matteo Iannacone (Milan) 

Submission deadline 15th July 2022

Info: iaaass@unica.it , <http://people.unica.it/iaaass/>



The Organizing Committee welcomes you to Polaris Technology Park, located in the territory of Pula (Cagliari) in a natural park at the foot of Sulcis mountains, South-Western coast of Sardinia. We look forward to sharing with you a wider view on current and future antiviral strategies in this amazing place!

Organizing Committee:

Enzo Tramontano, University of Cagliari, Italy
Stuart Le Grice, NCI, Frederick, MD, USA
Angela Corona, University of Cagliari, Italy
Reuben Harris, HHMI & UT Health San Antonio, USA
Vincenzo Summa, Federico II University, Naples, Italy

Elias Maccioni, University of Cagliari, Italy
Graciela Andrei, UK Leuven, Belgium
Ben Berkhout, University of Amsterdam, Netherlands
Cristina Parolin, University of Padova, Italy



Innovative Approaches for Identification of Antiviral Agents

September 26th -30th 2022, Pula (CA), Sardinia, Italy

2022.09.26

4.00 pm Shuttle from Hotel Flamingo to the Research Park

4.30 pm **Opening Remarks** **AUDITORIUM**

Enzo Tramontano Local host

Kathie Seley-Radtke ISAR president

Plenary lectures

1- Kathie Seley-Radtke

University of Maryland, Baltimore, USA

Fleximers – a strategic approach to broad-spectrum antiviral therapeutics

2 - Graciela Andrei

REGA Institute, KU, Leuven, Belgium

Antiviral drug development against large DNA viruses: success and failure

6:30 pm Shuttle from Research Park to the Hotel Flamingo

8:00 pm **Dinner**

2022.09.27

8.40 am Shuttle from Hotel Flamingo to the Research Park

9:00 am **Plenary Lectures** **AUDITORIUM**

Chairman Ben Berkhout

3 - Branka Horvat

International Center for Infectiology Research, Lyon, France

Development of fusion inhibitory peptides against airborne viral infections

4 - Stefan Pöhlmann

German Primate Center, Infection Biology Unit, University of Göttingen, Germany

SARS-CoV-2 entry into cells and its inhibition

11.00 am **Coffee Break**

11.15 am **Poster session 1 odd numbers** **WORKSHOP ROOM**

12:00 am **Plenary Lecture** **AUDITORIUM**

Chairman Nicole Grandi

5 - Massimo Palmarini

Centre for Virus Research, MRC-University of Glasgow, UK

Evasion of genetic barriers for spillover and pandemic emergence of influenza A viruses

1.00-2.30 pm **Lunch**

2.30-4.15 pm **Selected oral communications** **AUDITORIUM**

Chairman Reuben Harris

1.0 – Gregory Mathez

Institute of Microbiology, University of Lausanne, Lausanne

Innovative approaches for broad-spectrum antivirals

2.0 – Yuliya Chykunova

Virogenetics Laboratory of Virology, Jagiellonian University, Poland

Structural insights into the inhibition of O'nyong'nyong virus

3.0 - Matteo Costantino

Department of Clinical and Biological Sciences, Orbassano (Turin), Italy

27-hydroxycholesterol inhibits rhinovirus replication in vitro and on human nasal and bronchial histocultures without selecting viral resistant variants

4.0 - Irina Stefanelli

Dipartimento di Farmacia - Università degli Studi di Napoli Federico II -Italy

Peptidomimetic inhibitors of CoVs Main proteases: design, synthesis, biological evaluation and structural biology studies.

2022.09.27

5.0 - Elisa Fanunza
*University of Texas, Health Science Center
San Antonio*

CRISPR/Cas9-IFA Screening to Identify Novel Viral Factors
Involved in HCMV-induced APOBEC3B Relocalization.

6.0 – Federica Giammarino
*Department of Medical Biotechnologies,
University of Siena, Italy*

Evaluation of the in vitro combinatorial activity of ibalizumab and
HIV-1 antivirals

7.0 - Annalaura Paulis
*Department of Life and Environmental
Sciences, University of Cagliari, Italy*

In search of novel antiviral strategies: newly identified molecules
induce type I Interferon expression through STING dependent
pathway

4.30 pm

Shuttle from Research Park to the Hotel Flamingo

6.30-7.30 pm

Discussion groups

Hotel Meeting points

8.00 pm

Dinner

2022.09.28

8.40 am

Shuttle from Hotel Flamingo to the Research Park

9:00

Plenary Lectures

AUDITORIUM

Chairman Kathie Seley-Radtke

6- Priscilla Yang

Stanford University, Stanford, USA

Targeted protein degradation (rather than functional inhibition)
as an alternative antiviral strategy

7- Chris Meier

University of Hamburg, Germany

Getting highly polar, bioactive Nucleotides into cells using
chemical “trojan horses” – from Medicinal Chemistry to Chemical
Biology

11.00 am

Coffee Break

11.15 am

Poster session 2 even numbers

WORKSHOP ROOM

12.00-13.00

Plenary Lecture

AUDITORIUM

Chairman Elias Maccioni

8 - Vincenzo Summa

Federico II University of Naples, Italy

A journey into the drug discovery of the proteases from HCV to
SARS-CoV2

1.00-2.00 pm

Lunch

2.00- 5.00 pm

Plenary BIOTECH

AUDITORIUM

Chairman Vincenzo Summa

Reithera

Antonella Folgori

Developing viral vectored-vaccines against infectious diseases:
achievements, challenges and opportunities

Takisbiothech

Luigi Aurisicchio

DNA vaccination: past, present and future perspectives

Dompé

Daniela Iaconis

Artificial Intelligence AI and Molecular Simulation MS: paving a
new way for drug discovery

ViroStatics

Franco Lori

Synergistic combinations of antiviral drugs

5.00 pm

Shuttle from Research Park to the Hotel Flamingo

7.00-8.00 pm

Discussion groups

Hotel Meeting points

8.00 pm

Dinner

2022.09.29

8.40 am Shuttle from Hotel Flamingo to the Research Park

9:00 am **Plenary Lectures** **AUDITORIUM**

Chairman Rolando Cannalire

9 - Enzo Tramontano Searching for direct acting agents targeted to SARS-CoV-2 proteins
University of Cagliari, Cagliari, Italy

10 - Albrecht von Brunn From Coronavirus-host protein-protein interaction screening to viral signaling pathways and broad-spectrum antivirals
Ludwig-Maximilians-University, Munich, Germany

11.00 am **Coffee Break**

11:30 am **Plenary Lectures** **AUDITORIUM**

Chairman Graciela Andrei

11 - Reuben Harris Combinatorial therapy for SARS2 - Insights from studies on the viral main protease (Mpro/3CLpro)
HHMI & UT Health San Antonio, Texas, USA

12 - Ben Berkhout Can we use CRISPR-Cas to cure an HIV-1 infection?
Institute for Infection and Immunity, University of Amsterdam, Netherlands

1.00-2.00 pm **Lunch**

2:00-4:00 pm **Round table: Is there any life after PhD?** **AUDITORIUM**

An overview of working perspectives

Chairman Prof. Stuart Le Grice

Takisbiothech Luigi Aurisicchio

Dompé Daniela Iaconis

ViroStatics Franco Lori

University of Maryland Kathie Seley-Radtke

University of Naples Vincenzo Summa

4:15 pm Shuttle from Research Park to the Hotel Flamingo

8.00 pm **Dinner**

2022.09.30

8.40 am Shuttle from Hotel Flamingo to the Research Park

9:00 am **Plenary Lectures** **AUDITORIUM**

Chairman Simona Distinto

13 - Johan Neyts Antivirals, a lot has been achieved, yet a long way to go
REGA Institute, KU, Leuven, Belgium

14 - Andrea Brancale Computational approaches in the design of novel antivirals
University of Chemistry and Technology, Prague, Czech Republic

11.00 am **Coffee Break**

11:30 am **Plenary Lectures** **AUDITORIUM**

Chairman Massimo Palmarini

15 - Matteo Iannacone Mouse models for SARS-CoV-2 pathogenesis and drug development
Vita Salute San Raffaele, Milan, Italy

16 - Jean Nachega COVID-19 Vaccines Roll-out in Africa: Challenges and Opportunities
University of Pittsburgh, Pennsylvania, USA

1.00-2.30 pm **Lunch**

2022.09.30

2.30-4.30 pm **Selected oral communications** **AUDITORIUM**

Chairman Angela Corona

8.O - Giulia Sibille

*Department of Life Sciences and Systems
Biology, University of Torino, Italy*

In Vitro Targeting Influenza Virus Replication by a Third
Generation Dihydroorotate Dehydrogenase Inhibitor

9.O- Agnieszka Dabrowska

*Virogenetics Laboratory of Virology,
Jagiellonian University, Cracow, Poland*

Mechanism of action of poly(sodium 2-(acrylamido)-2-methyl-1-
propanesulfonate) and poly(sodium 11-
(acrylamido)undecanoate) during viral infection

10.O - Alessia Alberico

*Department of Pharmacy, University of
Naples Federico II, Naples, Italy*

The PADAM oxidation route for the synthesis of covalent
reversible SARS-CoV-2 Main Protease inhibitors

11.O - Jing Yi Lai

*Institute for Research in Molecular Medicine
Universiti Sains Malaysia, Malaysia.*

Isolation and characterisation of human monoclonal antibody
against VP35 of Ebola virus

12.O - Lia Fiaschi

*University of Siena, Dipartimento di
Biotechnologie Mediche, Siena, Italy*

Development of SARS-CoV-2 Mpro inhibitors retaining in vitro
activity against circulating SARS-CoV-2 variants of concern

13.O – Camilla Albano

*University of Turin - Dept. of Public Health
and Pediatric Sciences*

Strigolactones as broad-spectrum antivirals against β -
coronaviruses through targeting SARS-CoV-2 Mpro

14.O - Sante Scognamiglio

*Laboratory of Molecular Virology,
University of Cagliari, Italy*

HERV-K(HML8) integrations in the human genome:
identification, comprehensive characterization and comparative
genomics

4:45 pm

Shuttle from Research Park to the Hotel Flamingo

8.00 pm

Closing Dinner

Posters

- 1 **Aaron Alvarez De Lauro**
Department of Biological Chemistry and Organic Chemistry, University of Exact and Natural Science, University of Buenos Aires, Argentina.
 - 2 **Simona Barone**
Department of Pharmacy, University "Federico II" of Naples, Italy
 - 3 **Emilia Barreto-Duran**
Virogenetics Laboratory of Virology, Malopolska Centre of Biotechnology, Jagiellonian University, Krakow, Poland
 - 4 **Roberta Bivacqua**
Department of Biological, Chemical and Pharmaceutical Sciences and Technologies, University of Palermo, Italy
 - 5 **Emilia Cassese**
Department of Pharmacy, University "Federico II" of Naples, Italy
 - 6 **Saili Chabukswar**
Laboratory of Molecular Virology, Department of Life and Environmental Sciences, University of Cagliari, Cagliari – Italy
 - 7 **Álvaro De la Cruz**
Consejo Superior de Investigaciones Científicas - Instituto de Química Médica (CSIC-IQM), Madrid, Spain
 - 8 **Anastasia Ferraro**
University "Federico II" of Naples, Department of Pharmacy
 - 9 **Karen Giménez-Orenga**
Universidad Católica de Valencia
 - 10 **Jyotsna Jaiswal**
Department of Biochemistry, University of Allahabad, Prayagraj-UP, India.
 - 11 **Miguel Maldonado**
Instituto de Química Médica (IQM, CSIC), E-28006 Madrid, Spain
 - 12 **Paolo Malune**
Laboratory of Molecular Virology, Department of Life and Environmental Sciences, University of Cagliari, Cagliari – Italy
 - 13 **Silvia Marchese**
Fondazione Istituto Nazionale di Genetica Molecolare (INGM) "Romeo ed Enrica Invernizzi", Milano, Italia.
 - 14 **Elena Matyugina**
Engelhardt Institute of Molecular Biology, RAS, Moscow
 - 15 **Alessia Onali**
Department of Life and Environmental Sciences, University of Cagliari, Cagliari – Italy
 - 16 **Erica Sanna**
Department of Life and Environmental Sciences, University of Cagliari, Cagliari – Italy
 - 17 **Susanna Scaglioni**
Fondazione Istituto Nazionale di Genetica Molecolare (INGM) "Romeo ed Enrica Invernizzi", Milano, Italia.
 - 18 **Daniela Secchi**
Department of Life and Environmental Sciences, University of Cagliari, Cagliari – Italy
 - 19 **Norefrina Shafinaz Md Nor**
Department of Biological Sciences and Biotechnology, Faculty of Science and Technology, Universiti Kebangsaan Malaysia
 - 20 **Amelia Zheng Hua Yap**
Higher Institution Centre of Excellence (HiCoE), Tropical Infectious Diseases Research and Education Centre (TIDREC), Universiti Malaya, Kuala Lumpur Malaysia
- In vitro antiviral activity of sulfated galactans against herpes simplex virus 1 strains**
 - Rational design of novel non peptidic inhibitors of SARS-CoV2 3Cl protease**
 - Airway epithelium and macrophages co-culture model to study SARS-CoV-2 infection.**
 - Synthesis and biological evaluation of novel thiazole-based compounds as potential anti SARS-CoV-2 agents**
 - Design and synthesis of novel potent inhibitors of SARS-CoV-2 Mpro**
 - Comparative Genomics provides insights on Recent Activity of HERV-K(HML2) in Old World Monkeys (Macaca fascicularis and Macaca mulata)**
 - Design and Synthesis of Trimeric Fusion Inhibitors of Influenza Virus Targeting the Hemagglutinin Fusion Peptide**
 - Synthesis optimization of the first in class SARS-CoV-2 3CLpro inhibitor Nirmatrelvir**
 - May endogenous retroviral directional therapies constitute a treatment for Myalgic Encephalomyelitis/Chronic Fatigue and/or Long-COVID-19?**
 - Therapeutic potential of Parthenium Hysterophorus plant extracts against HIV-1 RT and some microbial species**
 - A Novel and Versatile Class of Coronavirus non-covalent Mpro Inhibitors based on 1,4,4-Trisubstituted Piperidines**
 - Development of multiple assays to evaluate the inhibitory effect of small molecules against SARS-CoV-2 RNA dependent RNA polymerase (RdRp)**
 - Pseudotyped lentiviral vector as a reliable and efficient tool to assess the viral entry step of SARS-CoV-2**
 - Evaluation of the antiviral potential of modified heterocyclic bases and nucleoside analogs against SARS-CoV-2**
 - Exploiting computational methods to identify new potential antiviral compounds**
 - Investigating the structural requirements for the dual inhibition of HIV 1 RT RDDP and RNase H associated functions**
 - Characterization of the humoral and cellular immune response elicited by COVID-19 mRNA-1273 vaccine in people with HIV**
 - Structural exploration around the Rilpivirine and Etravirine scaffolds**
 - In silico screening and in vitro analysis of neem (azadirachta indica) extract for antiviral activity towards RNA viruses**
 - The bacterial extract of a potentially novel Streptomyces sp. inhibits dengue virus serotype 2 (DENV-2) in C6/36 mosquito cell line**