

# SCNAC '20/22 Tentative Programme – Posters

Tuesday, June 7 afternoon

P-01	Miguel Angel	Aleman Garcia	DNA functionalized polymersome structures
P-02	Marcelina	Bednarczyk	Targeting mRNA decapping proteins - discovery of small molecule inhibitors of Vaccinia Virus decapping enzyme D9 by fluorescence-based activity assay
P-03	Raphael	Bereiter	1-Deazaguanosine modified RNA - The missing piece for functional RNA atomic mutagenesis
P-04	Petra	Brehova	Synthesis of phosphorothioate CDNs with potent STING-activating properties
P-05	Mária	Brunderová	Enzymatic synthesis of base-decorated RNA with reactive functionalities for capturing RNA-protein interactions
P-07	Michal	Cesnek	Synthesis of 4-substituted (E)-((3-(2-aminothiazol-5-yl)allyl)oxymethyl) phosphonates as potential inhibitors of bacterial and human adenylate cyclases
P-08	Raphael	de Paiva	A Targeted Click Chemistry Approach for Developing Metallated PNA Hybrids
P-09	Milan	Dejmek	Development of vinylphosphonate-linked cyclic dinucleotides for the treatment of cancer
P-10	Julia	Dietzsch	Tuning exciton coupling of merocyanine nucleoside dimers by RNA, DNA and GNA double helix conformations
P-11	Györgyi	Ferenc	Synthesis and characterization of the secondary structure of oligonucleotides containing 2'-deoxy-5-hydroxyuridine
P-12	Aaron	Fleming	Base modifications in DNA non-canonical structures within gene promoters regulate transcription
P-13	Marianne	Fleuti	Synthesis of pyrazolo-fused 7-Deazapurine ribonucleosides
P-14	Filip	Gracias	5-Ethyl- and 5-propylpyrimidine nucleotides and their oxidised congeners: their synthesis, incorporation into DNA and effect on transcription
P-15	Joseph	Hennessy	A Click Chemistry Approach to cis-Platinum(II)-TFO Targeted DNA Crosslinking
P-16	Fabian	Hernichel	Dideoxy-cGAMP derivatives are poxin-stable and effective STING agonists
P-17	Aswathi	Chakrapani	Glucosylated 5-hydroxymethylpyrimidines as epigenetic DNA bases regulating transcription and restriction cleavage
P-19	Chun Yin	Chan	Geranyl-thiouridines as a bridging prebiotic molecular fossil to bring the RNA world into a protocell world
P-20	Ivana	Ivancová	Squaramate-Modified Nucleic Acids for Specific Cross-Linking with Lys-Containing Peptides and Proteins
P-21	Tomáš	Jandušík	Novel phosphonate-based cyclic dinucleotides as activators of cGAS-STING pathway.
P-22	Katarzyna	Jastrzębska	P-stereodefined phosphorothioate oligonucleotide chimeras containing DNA and RNA or 2'-OMe-RNA units
P-23	Jacek	Jemielity	The identity and methylation status of the first transcribed nucleotide in eukaryotic mRNA 5' cap modulates protein expression in living cells
P-24	Yang	Jiang	A quantitative map of DNA damage in the human genome caused by benzo[a]pyrene
P-25	Renata	Kaczmarek	Synthesis of Dicobalt Hexacarbonyl Oxopropynyl and Related 5-Alkynyluridines, Their Anticancer Activity, and Formation of Reactive Oxygen Species (Oxidative Stress)
P-26	David	Kodr	Multipotential Coding of all Four DNA Bases for Sequence Analysis
P-27	Ondřej	Kostov	Optimized Synthesis of Thiomorpholino Oligonucleotides (TMOs) and their DNA Chimeras – Condensation step
P-28	Joanna	Kowalska	Development of probes for monitoring decapping activity in living cells
P-29	Pavel	Kraina	7-Substituted 7-Deazapurine Analogues of Adefovir as Potential Modulators of Human and Bacterial Adenylate Cyclases
P-30	Tomáš	Kraus	Modified analogs of synthetic transporters of nucleoside triphosphates: transporting abilities, cytotoxicities and applications in cell biology
P-31	Matouš	Krömer	Enzymatic synthesis of carbohydrate-decorated DNA
P-32	Miroslav	Kuba	Environment-Sensitive Fluorescent Labelling of DNA by Enzymatic Incorporation of Modified Nucleotides
P-33	Katarzyna	Kulik	Comparison of the susceptibility of 2-thio- and 2-selenouridines, tRNA wobble nucleosides, to oxidative and reducing conditions that mimic oxidative stress in the cell
P-34	Zoltan	Kupihar	Synthesis of clickable nucleoside building blocks for easy preparation of nucleoside containing bioconjugates
P-35	Natalia	Kuprikova	Nucleotides bearing anionic functional groups for enzymatic synthesis of modified DNA
P-36	Megan, Catherine	Lambert	Oxidative stress promotes structural changes in a G-quadruplex forming sequence present in the P1 promoter region of the PSEN2 gene.
P-38	Denise-Liu	Leone	Reactive modifications on DNA for cross-linking with arginine containing peptides and proteins
P-40	Giammarco	Liuni	Development of DNA-based PROTACS
P-41	Stefan	Mair	Towards a comprehensive understanding of RNA deamination – Synthesis and properties of xanthosine-modified RNA
P-42	Flaminia	Mancini	REVERSE TRANSCRIPTASE FINGERPRINT METHOD AS A SELECTIVE CAPTURING TECHNIQUE FOR THE IDENTIFICATION OF NpnN-RNAs
P-43	Alex	Manicardi	Exploiting Double Exchange Diels-Alder Cycloadditions for Immobilization of Peptide Nucleic Acids on Gold Nanoparticles
P-44	Alex	Manicardi	Visible-light triggered templated ligation on surface using furan-modified PNAs
P-45	Salam	Maree	New Generation FIT-PNA probes
P-46	Nikki	Mathewson	Reverse transcription of modified RNA leads to characteristic sequencing signature for 8-oxo-7,8-dihydroguanine
P-47	Brionna	McGorman	Click and Cut: Enzymatic production of molecularly targeted DNA scissors
P-48	Justina	Medziune	Synthesis of oligonucleotide-tethered nucleotides for simplified NGS library preparation
P-49	Georgia	Menounou	Rational Design of a Phosphate-Targeted di-Zinc(II) Complex for Targeted Gene Therapy Applications
P-50	Maria Bianca	Mititelu	Arabidopsis Thaliana Nudixes have RNA decapping activity
P-52	Sarah	Moreno	Synthesis of 4-thiouridines with prodrug functionalization for RNA metabolic labeling
P-53	Francois	Morvan	DNA-inspired foldamers
P-54	Felix Moritz	Müller	A prebiotically plausible scenario for the emergence of an RNA-peptide world
P-55	Hermann	Neitz	Fluoroarene-Arene Interactions in Polynucleotide Backbones
P-56	Ondřej	Nešuta	m7Gp4Gm-RNA: Development of Selective CaptureSeq Method
P-57	Ciara	O'Sullivan	Electrochemical genosensor for the direct detection of tailed PCR amplicons incorporating ferrocene labelled dATP
P-58	Ciara	O'Sullivan	Detection of SARS-CoV-2 variants using isothermal bridge amplification and ferrocene linked oligonucleotides
P-59	Ciara	O'Sullivan	Selection of aptamers against the anaphylactic allergen beta-conglutinin using modified oligonucleotides
P-60	Elsa	Peev	Metabolization and Optimization of Carbocyclic 5-Aza-2'-Deoxycytidine
P-62	Suzanne	Peyrottes	Expedient Mechanosynthesis of Symmetrical or Mixed Dinucleotides
P-63	Šimon	Pospíšil	Synthesis and Enzymatic Incorporation of Nucleotides Bearing Epigenetic Modifications
P-64	Ewa	Radzikowska	S-prenylated RNAs as intermediates in the SelU-catalyzed 2-thio- to 2-selenouridine-RNA conversion; chemical synthesis and physico-chemical and biological characterization
P-65	Andreas	Reichl	Intragenomic decarboxylation of 5-carboxy-2'-deoxycytidine
P-66	Leo Albert	Sala	DNA origami nanostructures as platforms to study ionizing radiation-induced DNA damage
P-67	Emma	Sandell	Nanopore detection of carboxymethylated DNA bases
P-68	Valentina	Serianni	Non-canonical RNA caps affect the RNA turnover under stress conditions in E. coli
P-69	Arghya	Sett	Selection of modified aptamers against undruggable proteins
P-70	Balazs	Schafer	Optimized Synthesis of Thiomorpholino Oligonucleotides (TMOs) by mild activation of the fully protected monomers
P-71	Erika	Schaudy	Photolithographic and enzymatic synthesis of chimeric L-/D-DNA microarrays
P-72	Eva	Schönegger	Click Chemistry enables rapid amplification of full-length reverse transcripts for long read Next Generation Sequencing
P-73	Mads Koch	Skaanning	The Potential of (L)-acyclic Threoninol Nucleic Acid (aTNA)
P-74	Jakob Melgaard	Smidt	Targeted delivery of chemotherapeutic nucleoside analogues
P-75		Sobek	Single-molecule chemistry: Oxidation of G in oligonucleotides and analysis of reactions products
P-76	Ambra	Spampinato	Fluorescent labeling and imaging of DNA by inverse electron demands Diels Alder cycloaddition (iEDDA) approach
P-77	Veronika	Sýkorová	Polymerase synthesis of DNA containing iodinated pyrimidine or 7-deazapurine nucleobases and their post-synthetic modifications through the Suzuki-Miyaura cross-coupling reactions
P-79	Patrycja	Szczupak	The substrate specificity of the bacterial tRNA 2-selenouridine synthase (SelU) towards a short RNA oligomer bearing 2-thiouridine
P-80	Michal	Šála	A unique type of STING agonist with isonucleoside unit in CDN
P-81	Ondřej	Šimák	Preparation and characterization of cyclic dinucleotides bearing 2'- or 3'-methylphosphonate linkages.
P-82	Petra	Školáková	Mechanism of cytosine i-motif formation
P-83	Milan	Štefek	Synthesis of novel Ribavirin-like nucleosides containing isoxazole ring
P-84	Emerald	Taylor	How Conjugation of DNA to Collagen Mimetic and Beta Turn peptides Effects Self-assembly.
P-85	Karolína	Vaňková	Design and synthesis of novel acyclic nucleoside phosphonates as inhibitors of phosphoribosyltransferases
P-86	Martin	Volek	Overlapping but distinct: a new model for G-quadruplex biochemical specificity
P-87	Marcin	Warminski	Photoreactive mRNA cap analogs for RNA-protein crosslinking
P-88	Ewa	Wegrzyn	The role of methylation in a prebiotically plausible scenario of an RNA-peptide world
P-89	Chao	Yang	Synthesis, Biological Activity and Photophysical Properties of Tetracyclic Hetero-Fused 7-Deazapurine Nucleosides