



**Centro Regionale
Information Communication
Technology
CeRICT SCRL**

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Prot. 239 del 22/07/2021

DETERMINA NOMINA COMMISSIONE

Oggetto: Nomina Commissione giudicatrice Gara Aperta Prot. N. 198 del 30/06/2021 CIG 88091325B1, a valere sul progetto CNOS (Centro di Nanofotonica e Optoelettronica per la Salute dell'uomo) - POR CAMPANIA FESR 2014/2020 CUP B81C17000050007 - SURF 17063BP000000001

IL RUP

Richiamata la determina a contrarre del 22/06/2021;

Rilevato che il termine per la presentazione delle offerte del Bando in oggetto è scaduto il giorno 21/07/2021 alle ore 12:00;

Rilevato che per la valutazione delle offerte del Bando summenzionato è necessaria la costituzione di una commissione che esamini le offerte tecniche ed economiche;

Atteso che ai sensi del comma 3 dell'articolo 77 del D.Lgs. 50/2016 i commissari sono scelti, in caso di appalti di importo superiore alla soglia comunitaria, tra gli esperti iscritti all'Albo dei componenti delle Commissioni giudicatrici istituito presso l'ANAC;

Considerato che ai sensi del combinato disposto degli articoli 77, comma 12, e 216, comma 12 del D.lgs. 50/2016, nelle more dell'adozione della disciplina dell'Albo di esperti costituito presso l'ANAC, la commissione continua ad essere nominata dall'organo della stazione appaltante competente ad effettuare la scelta del soggetto affidatario del contratto;

Ritenuto di dover individuare un criterio che rispetti i principi di competenza e trasparenza;

Visto il "Provvedimento Nomina Commissioni Giudicatrici Gare Aperte", Prot. 171 sottoscritto dal Dirigente in data 25/05/2021, recante i criteri di nomina dei Commissari;

Considerato che per il ruolo di Commissari sono stati individuati dei profili rispondenti ai criteri contenuti nel Provvedimento di cui al precedente punto;

Dato atto che il Dott. Ruvo Menotti, la Dott.ssa Giorgia Celetti, e la Dott.ssa Angela Maria Cusano sono in possesso dell'esperienza tecnica necessaria ai fini dell'insediamento in Commissione;

Dato atto che sono state inviate le Richieste di disponibilità ai candidati Commissari tramite la Piattaforma

<https://cerict.traspare.com/> ;

Viste le accettazioni incarico, corredate di attestazione di inesistenza di cause ostative alla nomina ai sensi dell'art. 77, comma 9, del Codice degli Appalti;

NOMINA

La seguente Commissione preposta alla valutazione delle Offerte pervenute per il Bando di Gara in oggetto:

Dott. Ruvo Menotti (Presidente)

Dott.ssa Angela Maria Cusano (Componente)

Dott.ssa Giorgia Celetti (Componente)

La valutazione si terrà il giorno 23/07/2021 a partire dalle ore 15:00.

La commissione avrà il compito di effettuare la valutazione tecnica ed economica secondo il Disciplinare di Gara.

Le valutazioni si svolgeranno presso la sede operativa e legale di Benevento del Centro Regionale Information Communication Technology – CeRICT srl.

I curricula dei Commissari sono presenti sulla Piattaforma Traspare, nonché sul profilo della Stazione Appaltante

Benevento, 22/07/2021



IL RUP
Dott. Marco GUARINO

Sedi Operative:
Via Cinthia Complesso di Monte S. Angelo - Fabbr. 8b – 80126 Napoli | T: 081 679951/55
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Polo di Optoelettronica e Fotonica
C.da Piano Cappelle – 82100 Benevento
E: optolab@cerict.it



PROGETTI DI RICERCA@CNR
Curriculum vitae (max. 2 pages)

[Please follow the template below as closely as possible; it may be adapted as necessary]

PERSONAL INFORMATION

Family name, First name: **Ruvo, Menotti**

Researcher unique identifier(s): **Researcher ID: K-2603-2018; Scopus Author ID: 6602155654; ORCID: 0000-0001-5997-756X.**

Date of birth: **April, 20th, 1964.**

Nationality: **Italian**

URL for web site: **<http://www.ibb.cnr.it/?command=viewu&id=386>**

• **EDUCATION**

1991 Master degree, Department of Chemistry, University of Napoli, Federico II, Italy.

• **CURRENT POSITION(S)**

2020 –Current Position: Research Director, IBB, CNR, Napoli.

• **PREVIOUS POSITIONS**

2001-2001 Position held: Associate Director, Xeptagen SpA, Napoli

1991 – 2000 Position held: Senior Scientist, Tecnogen SpA, Caserta

• **SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS**

2001 – 2021 Number of Postdocs/ PhD/ Master Students: 15 Post-docs; 10 PhD students; 10 Master Students. Department of Chemistry, University of Naples, Federico II; Department of Biological Sciences, University of Napoli, Federico II; Department of Pharmacy, University of Napoli, Federico II; PhD in Biomolecular Sciences, University L. Vanvitelli, Napoli.

• **TEACHING ACTIVITIES (if applicable)**

1997 – 2001: Teacher. Topics: Chemistry of Peptide Synthesis, Solid Phase Synthesis of Peptide Libraries, Analytical Methods for the Quality Control of Peptide Libraries, Experimental of Solid Phase Synthesis of Peptide Libraries, Experimental of Cleavage and Purification of Peptide Libraries, Experimental of Characterization of Peptide Libraries, Experimental of Screening of Peptide Libraries. Name of Institution: ICS-UNIDO; Countries: Italy (1997), India (1998), South Africa (1998), Hungary (2001).

2016: Teacher. Topics: Library synthesis, screening and combinatorial chemistry techniques.

PhD in Biomolecular Sciences University of Campania Luigi Vanvitelli, Coordinator Prof. Andrea Riccio. XXX ciclo.

2003: Teacher. Topics: Library synthesis, screening and combinatorial chemistry techniques.

PhD in Biomolecular Sciences University of Campania Luigi Vanvitelli, Coordinator Prof. Augusto Parente. XVII ciclo.

2011: Teacher. Topics: Mass spectrometry; Mass methods for qualitative and quantitative analysis; Synthesis and screening of peptide libraries. Project IFTS organized by Istituto Tecnico Industriale Giordani, NAPOLI.

2006: Teacher. Topics: Mass spectrometry; Protein characterization by mass spectrometry; protein expression and purification; Project “STRUIM” supported by FESR in the framework of Programma Operativo Nazionale “Ricerca Scientifica, Sviluppo Tecnologico, Alta Formazione”

2000-2006 in biostructures and bioimaging.

• **ORGANISATION OF SCIENTIFIC MEETINGS (if applicable)**

2014, Co-chairman 14th Naples Workshop on Bioactive Peptides; Country: Italy (Naples).

2016, Co-chairman 15th Naples Workshop on Bioactive Peptides; Country: Italy (Naples).

2018, Co-chairman 16th Naples Workshop on Bioactive Peptides; Country: Italy (Naples).

2007, Organizing committee, First Symposium on Combinatorial Science in Biology, Chemistry, Catalysts and Materials. Italy (Florence)

- **REVIEWING ACTIVITIES (if applicable)**

2019-present: Editor and reviewer: International Journal of Molecular Sciences, MDPI
Academic Editor

2019-present: Editor and reviewer: Scientific Report, Springer. Academic Editor

2020-present: Editor and reviewer: Current Pharmaceutical Biotechnologies, Bentham
Academic Editor.

2013-present: Editor and reviewer: Current Drug Discovery technologies, Bentham
Academic Editor. Protein and Peptide Letter, Bentham. Academic Editor.

Evaluator for FET-OPEN projects (2020), FP VII projects (2011); ANF (2017); PRIN, FIRB,
Scientific Cooperation Between Germany And Israel (Israel), Rustaveli Foundation (Georgia), ESF
EUROCORES, European Association for Haemophilia and Allied Disorders.

- **MEMBERSHIPS OF SCIENTIFIC SOCIETIES (if applicable)**

2017 – present Founding Member, Research Network Italian Peptide Network.

2004 –2012 Associated Member: European Peptide Society

2004 – 2009 Associated Member: American Peptide Society

- **MAJOR COLLABORATIONS (if applicable)**

Università del Sannio, Dept Electronic Engineering, Benevento, Prof. Cusano, New Lab-on-Fiber
biosensors.

ISASI-CNR, Napoli, Dr.. Emanuela Esposito, New Infrared Spectroscopy based biosensors.

IPCB-CNR, Napoli, Dr. Ing. Michele Giordano, New Long Period Grating sensing platforms.

King's College, London, Prof. Mauro Giacca, new small molecule inhibitors of COVID-19 infection.

Università degli Studi di Napoli Federico II. Dept Medicine, Prof. Leonardi, new monoclonal antibodies.

Imperial College, London, Prof. Guido Franzoso, development of anti-myeloma compounds.

John Hopkins Univ. Baltimore, Prof. Nazareno Paolucci, development of new therapeutics for
arrhythmogenic cardiomyopathy.

BIOVIIIIX srl, Napoli, new biotherapeutics and drug delivery systems.

Bracco Imaging, Milano, antibodies in imaging applications, Dr. Maiocchi.

DIOGENX, Nice (France), new biotherapeutics, Dr. Botti.

Appendix: All ongoing and submitted grants and funding of the PI and of the Team Members (Funding ID)

On-going Grants (Please indicate "No funding" when applicable):

<i>Project Title</i>	<i>Funding source</i>	<i>Amount (Euros)</i>	<i>Period</i>	<i>Role of PI or Team Member</i>	<i>Relation to current proposal</i>
NEON - ARS01_00769	MUR	438.000 (IBB-CNR amount)	April 2019 – December 2022	PI for IBB-CNR	The project aims at developing new CMOS- and Lab-on-fiber devices for detecting biomarkers for cancer and neurodegenerative diseases. IBB-CNR contributes by choosing and validating the bioreceptors needed for analyte's capture and by setting up the immobilization conditions on the sensor's surface.
NANOCAN, Progetti Oncologia	Regione Campania	180.000 euro (IBB-CNR amount as member of the CERICT consortium)	January 2018 – December 2022	PI for IBB-CNR	The project aims at developing Lab-on-fiber devices for detecting new biomarkers for cancer diseases. IBB-CNR contributes by choosing and validating the bioreceptors needed for analyte's capture and by setting up the immobilization conditions on the sensor's surface.
OPTIMA, FESR	Regione Campania	120.000 euro (IBB-CNR amount as member of the TOP-IN consortium)	January 2016 – November 2020.	PI for IBB-CNR	The project aimed at developing Lab-on-fiber devices for detecting Vitamin D in blood samples. IBB-CNR contributed by choosing and validating the bioreceptors and by immobilizing them on the sensor's surface.
PRIN: – Bando 2015 Prot. 2015783N45_03	MUR	80.000 euro (IBB-CNR amount)	February 2017 – February 2020	PI for IBB-CNR	The project aimed at developing Lab-on-fiber devices for detecting miRNA in blood samples as biomarkers for neurodegenerative diseases. IBB-CNR contributed by choosing and validating the bioreceptors and by immobilizing them on the sensor's surface.
Progetto SMART_HEALTH, PON04a2_C	MUR	235.000 euro (IBB-CNR amount)	April 2013 – October 2015	PI for IBB-CNR	<u>Aim of the Project</u> was the Development of an innovative real time label-free optical fiber biosensor for the fast determination of Tg in the needle washout of Lymph nodes fine-needle aspiration (LN-FNA)

Only projects in the field of new biosensors are reported.

Grant applications (Please indicate "No funding" when applicable):

<i>Project Title</i>	<i>Funding source</i>	<i>Amount (Euros)</i>	<i>Period</i>	<i>Role of PI or Team Member</i>	<i>Relation to current proposal</i>
FET OPEN	EU	80.000 euro	2020- Not funded	PI for IBB-CNR	Compact, fully autonomous, optical point-of-care system for Covid.
PRIN_2017MWLEK2	MUR	100.000 euro	2017- Not funded	PI for IBB-CNR	Multiplexed on-bead photonic devices for detecting Thyreoglobulin in blood samples
PRIN_2020239LYL	MUR	450.000 euro	2021- Awaiting review	PI	Multiplexed on-bead photonic devices for detecting prostate cancer biomarkers in blood samples.

Only projects in the field of new biosensors are reported.

Ten years track-record (max. 2 pages)

Dr. M. Ruvo has been Senior Scientist (Primo Ricercatore) at the Institute of Biostructure and Bioimaging of CNR (IBB-CNR) from January 2002 up to January 2020. Since January 2020 he is Research Director (Dirigente di Ricerca) at the same institute. Before joining the CNR, he has been Junior Scientist (1991-1993), Senior Scientist (1993-2001) and finally Associate Director (2001) in pharmaceutical companies. He holds a degree in Chemistry obtained at the University of Napoli Federico II and has a background in protein chemistry and biochemistry and in peptide chemistry. He has developed skills in the development of bioactive peptides, recombinant proteins, monoclonal antibodies and antibody fragments utilized as new potential biotherapeutics and diagnostics. He has also an expertise in developing new reagents and assays for detecting biomarkers and contributed to the development of new optical fiber-based label-free devices (Giaquinto, et al., ACS Photonics, 2019, 6, 12, 3271–3280; patent n° WO2017IB52533). He has contributed to develop up to the pre-clinical and clinical phases several bioactive peptides against therapeutic targets for oncology (DTP3, patents WO2012GB50947, WO2010GB01970, clinical trial Phase 1/2a, patents licensed to Kesios Ltd; iVR1, patents WO20053773, WO20053772, preclinical, patents licenced to Anbition srl; CBP, patent EP20090166967, pre-clinical), eye diseases (iVR1, patents W O20053773, WO 20053772, preclinical, patents licenced to Anbition srl) and cardiovascular diseases, (AIF 370-394, pre-clinical; Chelko, et al., (2021) Science Translational Medicine, 13 (581), art. no. eabf0891, patent n° US Patent App. 63/147,068, patent licensed to John Hopkins University). He has been one of the founding members of Almabs srl, (2009, terminated 2012), Kesios Therapeutics Ltd (2012) and Anbition srl (2018), the last two companies are still operative. He has contributed to develop monoclonal antibodies against protein targets like Cripto-1 (Focà, et al., (2019) Biochimie, 158, pp. 246-256), Nodal (patent n° WO2015US54515, licensed to Tai-Rx, Taiwan). In the last 10 years at the IBB-CNR, he has published 115 papers in international peer-reviewed journals (Scopus.com) with a 10-years H-Index of 17. He is co-inventor of 10+ different patents, three of which have been licenced to companies (see above). In the last 10 years he has been Principal Investigator for some 20 different funded projects – five of which in the field of new biosensor's development - and received financial support for around 4.7 million euros. In the same period he has been supervisor of at least 15 different graduated and post-doc fellows supported by projects in different areas; he has been supervisors of at least 20 master and PhD students. He has served and serves as consultant for several companies, including Kesios Therapeutics, (2014-2015), Bracco Imaging (2016-2017) and BIOVIIIx (2019-present).

Publications

Please, indicate the total n. publications, the H-Index, the averaged IF and the top publications of the last 10 years (no page limits max. 15 publications)

Source: www.scopus.com

H-Index: 29.

N. Publication: 162.

Average IF: 5.

1 - Giaquinto, M., Aliberti, A., Micco, A., Gambino, F., Ruvo, M., Ricciardi, A., Cusano, A.; Cavity-Enhanced Lab-on-Fiber Technology: Toward Advanced Biosensors and Nano-Opto-Mechanical Active Devices (2019) ACS Photonics, 6 (12), pp. 3271-3280.

2 - Scherino, L., Giaquinto, M., Micco, A., Aliberti, A., Bobeico, E., La Ferrara, V., Ruvo, M., Ricciardi, A., Cusano, A.; A time-efficient dip coating technique for the deposition of microgels onto the optical fiber tip (2018) Fibers, 6 (4), art. no. 72,

3 - Giaquinto, M., Ricciardi, A., Aliberti, A., Micco, A., Bobeico, E., Ruvo, M., Cusano, A.; Light-microgel interaction in resonant nanostructures (2018) Scientific Reports, 8 (1), art. no. 9331,

4 - Aliberti, A., Ricciardi, A., Giaquinto, M., Micco, A., Bobeico, E., La Ferrara, V., Ruvo, M., Cutolo, A., Cusano, A.; Microgel assisted Lab-on-Fiber Optrode (2017) Scientific Reports, 7 (1), art. no. 14459,

5 - Aliberti, A., Vaiano, P., Caporale, A., Consales, M., Ruvo, M., Cusano, A.; Fluorescent chemosensors for Hg²⁺ detection in aqueous environment (2017) Sensors and Actuators, B: Chemical, 247, pp. 727-735.

6 - Pilla, P., Sandomenico, A., Malachovská, V., Borriello, A., Giordano, M., Cutolo, A., Ruvo, M., Cusano, A.; A protein-based biointerfacing route toward label-free immunoassays with long period gratings in transition mode (2012) Biosensors and Bioelectronics, 31 (1), pp. 486-491.

7 - Giaquinto M, Micco A, Aliberti A, Bobeico E, La Ferrara V, Ruvo M, Ricciardi A, Cusano A. Optimization Strategies for Responsivity Control of Microgel Assisted Lab-On-Fiber Optrodes (2018). Sensors (Basel). Apr 6;18(4):1119.

8 - Quero G, Consales M, Severino R, Vaiano P, Boniello A, Sandomenico A, Ruvo M, Borriello A, Diodato L, Zuppolini S, Giordano M, Nettore IC, Mazzarella C, Colao A, Macchia PE, Santorelli F, Cutolo A, Cusano A. Long period fiber grating nano-optrode for cancer biomarker detection (2016). Biosens Bioelectron. Jun 15;80:590-600.

9 - Cusano, A.M., Aliberti, A., Cusano, A., Ruvo, M.; Detection of small DNA fragments by biolayer interferometry (2020) Analytical Biochemistry, 607, art. no. 113898.

10 - Di Meo V, Caporale A, Crescitelli A, Jannehc M, Palangec E, De Marcellis A, Portaccio M, Lepore M, Rendina I, Ruvo M, Esposito E. Metasurface based on cross-shaped plasmonic nanoantennas as chemical sensor for surface-enhanced infrared absorption spectroscopy. (2019) Sensors and Actuators B: Chemical Volume 286, Pages 600-607.

11 - Sivaccumar J, Sandomenico A, Vitagliano L, Ruvo M. Monoclonal Antibodies: A Prospective and Retrospective View (2021). Curr Med Chem.;28(3):435-471

12 - Sandomenico A, Focà A, Sanguigno L, Caporale A, Focà G, Pignalosa A, Corvino G, Caragnano A, Beltrami AP, Antoniali G, Tell G, Leonardi A, Ruvo M. Monoclonal antibodies against pools of mono- and polyacetylated peptides selectively recognize acetylated lysines within the context of the original antigen (2016). MAbs. Nov/Dec;8(8):1575-1589.

13 - Selis F, Sandomenico A, Cantile M, Sanna R, Calvanese L, Falcigno L, Dell'Omo P, Esperti A, De Falco S, Focà A, Caporale A, Iaccarino E, Truppo E, Scaramuzza S, Tonon G, Ruvo M. Generation and testing of engineered multimeric Fabs of trastuzumab (2020). Int J Biol Macromol. Dec 1;164:4516-4531.

14 - Sandomenico A, Leonardi A, Berisio R, Sanguigno L, Focà G, Focà A, Ruggiero A, Doti N, Muscariello L, Barone D, Farina C, Owsianka A, Vitagliano L, Patel AH, Ruvo M. Generation and Characterization of Monoclonal Antibodies against a Cyclic Variant of Hepatitis C Virus E2 Epitope 412-422 (2016). *J Virol.* Jan 27;90(7):3745-59.

15 - Tornatore, L., Sandomenico, A., Raimondo, D., ...Ruvo, M., Franzoso, G. Cancer-Selective Targeting of the NF- κ B Survival Pathway with GADD45 β /MKK7 Inhibitors (2014). *Cancer Cell*, 26(6), pp. 938.

Giorgia Celetti

Ingegnere Biomedico specializzato in nanotecnologie

PhD in Scienza e Tecnologia dei materiali

ISTRUZIONE

- Da 12/2019: Corso di formazione Docenti
- 05/2016: PhD in Scienza e Tecnologia dei materiali, presso il Politecnico di Torino (Italia).
- 03/2012: Laurea Magistrale in Ingegneria Biomedica, (110/110), specializzazione in nanotecnologie, presso l'università Campus Bio-Medico di Roma (Italia).
- 10/2009: Laurea Triennale in Ingegneria Biomedica, presso l'università Campus Bio-Medico di Roma (Italia).

ESPERIENZE PROFESSIONALI

- 01/2019 – 10/2019: Ingegnere Senior delle Nano/Micro Tecnologie presso l'Università di Mainz (Germania)
- 12/2017 – 12/2018: Ingegnere delle Nano/Micro Tecnologie presso l'European Molecular Biology Laboratory (EMBL, Heidelberg - Germania)
- 2016 – 2017: Post dottorato presso l'European Molecular Biology Laboratory (EMBL, Heidelberg - Germania)
- 2015 – 2016: PhD visitor presso la Radboud University of Nijmegen (Olanda)
- 2013 – 2015: Borsista presso l'IIT@CABH (Istituto Italiano di Tecnologia – Center for Advanced Biomaterials for Healthcare) – Napoli, Italia

COMPETENZE PROFESSIONALI

In Microfluidica

- Tecniche fotolitografiche per fabbricare dispositivi microfluidici in clean room
- Progettazione e design di sistemi nano e microfluidici tramite AutoCAD, LayoutEditor (CAD software)
- Droplet-microfluidics
- Simulazione di sistemi fluidodinamici con Comsol Multiphysics (2D and 3D)

In Microscopia

- Microscopia Super-risoluzione
- Microscopia Confocale e multiparameter time correlated single photon detection spectroscopy/FRET measurements
- Microscopia elettronica (TEM, SEM/EDX e conoscenze di base di cryo-TEM)
- Manutenzione e costruzione di microscopi quali “single molecule spectrometers” e “super resolution microscopes”

In informatica e programming

- LabView per lo sviluppo di codici per il controllo della strumentazione di microscopia: conoscenza base
- Microsoft Office: ottime
- ImageJ: ottime
- Software di Grafica (Adobe Photoshop, Adobe Illustrator): sufficienti
- Software CAD: ottime

In Biochimica

- Cultura cellulare e biologia molecolare (cloning, purificazione di proteine)
- Site specific labelling con la tecnica “amber stop codon suppression”

COMPETENZE LINGUISTICHE

- Italiano (madrelingua)
- Inglese (fluente)
- Tedesco (base, A2)

CERTIFICAZIONI EXTRA-PROFESSIONALI

- Due grants per la collaborazione con il Center for Integrated Nanotechnologies (CINT)
- Certificazione corso LabView
- Certificazione corso di Sicurazza Laser (esperienza pratica per classi 3b e 4)

INFORMAZIONI AGGIUNTIVE

Attività di volontariato in Perù come Ingegnere Biomedico.

Lavoro come promoter presso Bella Vita expo ad Amsterdam.

Pubblicazioni scientifiche:

G. Celetti, C. Di Natale, F. Causa*, E. Battista, PA Netti; **Functionalized poly (ethylene glycol) diacrylate microgels by microfluidics: In situ peptide encapsulation for in serum selective protein detection**; Colloids and Surfaces B: Biointerfaces 145, 21-29

Fabio Del Ben^{†*}, Matteo Turetta[†], **Giorgia Celetti**, Aigars Piruska, Michela Bulfoni, Daniela Cesselli, Wilhelm T.S. Huck*, Giacinto Scoles*. **A method for detecting circulating tumor cells based on measurement of single cell metabolism in droplet-based microfluidics**. Angewandte chemie, June 2016.

F. Del Ben, M. Turetta, E. Biscontin, G. Brisotto, **G. Celetti**, A. Piruska, M. Bulfoni, D. Cesselli, A. Steffan, A. Colombatti, W. Huck, G. Scoles. **Preliminary clinical results of a metabolism-based method to detect circulating tumor cells**. European Journal of Cancer, February 2017 Volume 72, Supplement 1, Page S150.

Edmondo Battista, Filippo Causa, Angela Maria Cusano, Concetta Di Natale, Pasqualina Liana Scognamiglio, Alessia Mazzarotta, **Giorgia Celetti**, Chiara Cosenza, Anna Aliberti, Paolo Antonio Netti; **Multifunctional Microgels for Direct, Multiplexed and High Sensitive Detection**; January 2017; Procedia Technology

Di Natale, C., **Celetti, G.**, Scognamiglio, P. L., Cosenza, C., Battista, E., Causa, F., & Netti, P. A. (2018). **Molecularly endowed hydrogel with an in silico-assisted screened peptide for highly sensitive small molecule harvesting**. Chemical Communications, 54(72).

Celetti, G., Paci, G., Caria, J., VanDelinder, V., Bachand, G., & Lemke, E. A. (2020). **The liquid state of FG-nucleoporins mimics permeability barrier properties of nuclear pore complexes**Liquid FG-Nup permeability barrier properties. *The Journal of Cell Biology*, 219(1).

Autorizzo al trattamento dei dati personali contenuti nel mio curriculum vitae ai sensi del D.Lgs. 196/03. Inoltre, consapevole della responsabilità penale prevista, dall'art. 76 del D.P.R. 445/2000, per le ipotesi di falsità in atti e dichiarazioni ivi indicate, dichiaro che le informazioni riportate nel mio curriculum vitae sono veritiere.

Curriculum Vitae

Personal information

First name(s) / Surname(s) **Angela Maria Cusano**
Address(es) Via Laviano, 78 81100 Caserta ITALY
Telephone(s) Mobile: +39 3495232454
E-mail angelamaria.cusano@cerict.it
Nationality Italian
Date of birth 17.06.1978
Gender Female

Desired employment / Occupational field

Work experience

Dates **July 2018-to the present**
Occupation or position held Post-doctoral researcher
Main activities and responsibilities Project title: "NANOCAN - NANOFOTONICA PER LA LOTTA AL CANCRO"
- Development of a sensing platform based on optical fiber technology for the quantitative detection of biomarkers aimed to cancer diagnosis and prognosis
- Screening of bio-receptors, definition of binding affinities
- Set up and optimization of functionalization protocols
- Translation on optical fiber for bio-sensing
Name and address of employer Centro Regionale Information Communication Technology (CeRICT), via Traiano Palazzo "ex poste", 82100 Benevento
Type of business or sector Scientific Research
Dates **November 2015-November 2017**
Occupation or position held Post-doctoral researcher
Main activities and responsibilities Project title: "Tecnologie optoelettroniche innovative per il monitoraggio e la diagnostica dell'infrastruttura ferroviaria" **PON03PE_00155_1**
- Microgel synthesis suitable for opto-acoustic biosensors
- optical fiber surface modification for opto-acoustic biosensor by microgel attachment
Name and address of employer Centro Regionale Information Communication Technology (CeRICT), via Traiano Palazzo "ex poste", 82100 Benevento
Type of business or sector Scientific Research
Dates **November 2013-October 2015**
Occupation or position held Post-doctoral researcher

Main activities and responsibilities	Project title: "Design and set up of nucleic acid-based probes for sensing materials generation" <ul style="list-style-type: none"> - Rational design of nucleic acid (NA) probes - Set up of Fluorescence based detection system - Surface functionalization for selective recognition - Biological fluid manipulation and NA extraction and quantification
Name and address of employer	Istituto Italiano di Tecnologia (IIT@CRIB), Largo Barsanti e Matteucci 53, 80125 Napoli (ITALY)
Type of business or sector	Scientific Research
Dates	November 2010-October 2013
Occupation or position held	Post-doctoral researcher
Main activities and responsibilities	Project title: " <i>Generating bio-inspired materials through genetically engineered peptides</i> " <ul style="list-style-type: none"> - Phage display Screening systems for identification of selective binders against biomolecules - Implementation of selected binders in setting up of cancer biomarker detection systems - Translation of recognition system on micro-particles-based suspension array
Name and address of employer	Istituto Italiano di Tecnologia (IIT@CRIB), Largo Barsanti e Matteucci 53,80125 Napoli (ITALY)
Type of business or sector	Scientific Research
Dates	December 2008-October 2010
Occupation or position held	Post-doctoral researcher
Main activities and responsibilities	Project title: " <i>Role of the bacterial Type III secretion System (T3SS) in the interactions between bacteria and ectomycorrhizal fungi</i> " <ul style="list-style-type: none"> - Study of ectomycorrhizal interaction mechanisms - Set up of <i>in vivo</i> experiments to mimic the symbiotic behaviour between Tree-fungi-bacteria - Implementation of secretion system deletion mutants to study its effect in symbiotic mechanism
Name and address of employer	INRA-Nancy, UMR1136 "Interaction Arbres/Micro-organismes", Nancy (FRANCE)
Type of business or sector	Scientific Research
Dates	September 2006–November 2008
Occupation or position held	Post-doctoral researcher
Main activities and responsibilities	Project Title: " <i>Discovering Quorum Sensing in industrially useful Fungi, a novel approach at molecular level for scaling-up in white biotech.</i> " <ul style="list-style-type: none"> - Recombinant production in yeast and characterization of phenol-oxydase enzymes from basidiomycetes; - Signalling mechanisms in filamentous basidiomycetes - Rational design of point mutation DNA for engineered laccases generation
Name and address of employer	University "Paul Cézanne", UMR-CNRS 6263, Marseille (FRANCE)
Type of business or sector	Scientific Research in the context of the European project "QUORUM" (SIXTH FRAMEWORK PROGRAMME PRIORITY: "Using nature as model for new nanotechnology-based processes")
Education and training	

Dates **November 2002 –January 2006**

Title of qualification awarded Ph.D in Biotechnological Sciences (Industrial Biotechnology).

Principal subjects/occupational skills covered Thesis Title: "*Secretion systems in Antarctic bacteria and their biotechnological applications*"

Name and type of organisation providing education and training Department of Organic Chemistry and Biochemistry, "Federico II" University, Naples (Italy).
Founded by Ministero Italiano della Pubblica Istruzione

Level in national or international classification ISCED 08

Dates **September 2001 –July 2002**

Title of qualification awarded Five years degree in Chemistry, (specialization in Biochemistry and Molecular Biology)

Principal subjects/occupational skills covered Research thesis on: "*Characterization of molecular determinants involved in secretion in cold adapted bacteria and their implementation in recombinant protein secretion*"

Name and type of organisation providing education and training University of Naples, "Federicoll"

Level in national or international classification ISCED 06

Personal skills and competences

Mother tongue(s) **Italian**

Other language(s)

Self-assessment

European level ()*

English

French

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
B2	Independent user	B2	Independent user	C1	Proficient user	C1	Proficient user	C1	Proficient user
C2	Proficient user	B2	Independent user	C2	Proficient user	C2	Proficient user	B1	Independent user

(*) [Common European Framework of Reference for Languages](#)

Social skills and competences Replace this text by a description of these competences and indicate where they were acquired. (Remove if not relevant, see instructions)

Organisational skills and competences

DIRECTION IN SCIENTIFIC WORK

- Claudia Vicario (Bachelor in Biotechnological Science from 1/06/2002 to 31/10/2003)
- Maria Pia Ambrosone (Bachelor in Chemistry from 1/09/2002 to 31/10/2003)
- Maria Giuliani (Bachelor in Biotechnological Science from 1/09/2003 to 15/12/2004)
- Alessandro Farinella (Bachelor in Biotechnological Science from 1/10/2004 to 15/12/2005)
- Foued Kermad (Master 1 NSA from 10/04/2007 to 20/06/07)
- Christelle Leonetti (Master 1 NSA from 01/04/2008 to 21/06/08)
- Refery of Masters 1 et 2 NSA (Université Paul Cézanne, Marseille).
- Sara Spaziani (Post-doctoral researcher from 01/12/2012 to 31/05/2015)

Technical skills and competences	<p>Molecular biology techniques: Extraction and purification of genomic and extra-chromosomal DNA; total RNA from prokaryotic and eukaryotic cells; PCR amplification; cloning techniques; RT-PCR; nucleotide sequencing, directed mutagenesis, heterologous expression systems (<i>E. coli</i>, <i>Pseualteromonas sp.</i>, <i>Pseudomonas sp.</i>, <i>S. cerevisiae</i> and <i>A. Niger</i>),</p> <p>Biochemistry and Immunochemical Techniques: Extraction and analysis of protein pattern (total, periplasmic and extra cellular) by mono and bi-dimensional PAGE; immunoprecipitation techniques; Western Blotting analysis; Chromatographic techniques (ionic exchange, affinity and molecular exclusion); Ultracentrifugation techniques; Enzymatic and spectrophotometric assays; Kinetic parameters determinations (Km, kcat, kcat/Km, Ki)</p> <p>Microbiology techniques: Prokaryotic cell culture; Eukaryotic manipulations (<i>Saccharomyces cerevisiae</i>, <i>filamentous fungi</i>, <i>Dictyostelium discodeum</i>); Plant growth and bacterial infiltrations on plants leaves; Characterization of growth profile in different temperature and nutritional conditions; Transformation of mesophilic hosts; Conjugation of cold adapted bacteria; Manipulation and genetic procedure on yeast and filamentous fungi, "In vivo" symbiosis experiments in green house; Microscopy techniques (co-focal, laser-micro dissection, laser tweezers).</p> <p>Technological skills: Phage display technology, ELISA on beads and by passive adsorption, set up of peptide conjugated beads-based screening techniques and detection systems, design of Nucleic Acids (NA) probes for optical detection systems, beads and NA conjugation of material for bio-sensing set up.</p>
Computer skills and competences	Use of DOS and Windows operative systems and of main applicative systems (Word, Power Point, Corel, Excel). Bio-informatics bases (PubMed, Expacy). Programs for statistic of experimental dates (Graph Pad software) images elaboration (Photoshop, CorelDraw, Image J).
Driving licence	Type B

Additional information PUBLICATION

1. Caputo TM, Aliberti A, **Cusano AM**, Ruvo M, Cutolo A, Cusano A. Stimuli-responsive hybrid microgels for controlled drug delivery: Sorafenib as a model drug. *Journal of Applied Polymer Science* 2021, 138 (14), 50147
2. **Cusano AM**, Aliberti A, Cusano A, Ruvo M. Detection of small DNA fragments by biolayer interferometry. *Analytical Biochemistry* 2020 607, 113898
3. Di Meo V, Crescitelli A, Moccia M, Sandomenico A, **Cusano AM**, Portaccio M, Lepore M, Galdi V, Esposito E. Pixelated metasurface for multiwavelength detection of vitamin D. *Nanophotonics* 2020 9 (12), 3921-3930
4. Dannhauser D, Causa F, Battista E, **Cusano AM**, Rossi D, Netti PA. In-flow real-time detection of spectrally encoded microgels for miRNA absolute quantification. *Biomicrofluidics*. 2016 Dec 6;10(6):064114.
5. Aliberti A, **Cusano AM**, Battista E, Causa F, Netti PA. High sensitive and direct fluorescence detection of single viral DNA sequences by integration of double strand probes onto microgels particles. *Analyst*. 2016 Feb 21;141(4):1250-6. doi: 10.1039/c5an02001h.
6. Battista E., Mazzarotta A., Causa F., **Cusano AM**, Netti PA. Core Shell Microgels with Controlled Structural Properties. *Polymer Int* 2016 Jan 2; DOI: 10.1002/pi.5076
7. Del Giudice F, Madadi H, Villone MM, D'Avino G, **Cusano AM**, Vecchione R, Ventre M, Maffettone PL, Netti PA. Magnetophoresis 'meets' viscoelasticity: deterministic separation of magnetic particles in a modular microfluidic device. *Lab Chip*. 2015 Apr 21;15(8):1912-22. doi: 10.1039/c5lc00106d.
8. Causa F, Aliberti A, **Cusano AM**, Battista E, Netti PA. Supramolecular spectrally encoded microgels with double strand probes for absolute and direct miRNA fluorescence detection at high sensitivity. *J Am Chem Soc*. 2015 Feb 11;137(5):1758-61. doi: 10.1021/ja511644b. Epub 2015 Jan 28
9. **Cusano AM**, Causa F, Moglie RD, Falco N, Scognamiglio PL, Aliberti A, Vecchione R, Battista E, Marasco D, Savarese M, Raucci U, Rega N, Netti PA. Integration of binding peptide selection and multifunctional particles as tool-box for capture of soluble proteins in serum. *J R Soc Interface*. 2014 Oct 6;11(99). pii: 20140718. doi: 10.1098/rsif.2014.0718.
10. Liu Y, **Cusano AM**, Wallace EC, Mekmouche Y, Ullah S, Robert V, Tron T. Characterization of C-terminally engineered laccases. *Int J Biol Macromol*. 2014 Aug;69:435-41. doi: 10.1016/j.ijbiomac.2014.05.053.
11. Mekmouche Y, Zhou S, **Cusano AM**, Record E, Lomascolo A, Robert V, Simaan AJ, Rousselot-Pailley P, Ullah S, Chaspoul F, Tron T. Gram-scale production of a basidiomycetous laccase in *Aspergillus niger*. *J Biosci Bioeng*. 2014 Jan;117(1):25-7. doi: 10.1016/j.jbiosc.2013.06.013.
12. Gargiulo N, **Cusano AM**, Causa F, Caputo D, Netti PA. Silver-containing mesoporous bioactive glass with improved antibacterial properties. *J Mater Sci Mater Med*. 2013 Sep;24(9):2129-35. doi: 10.1007/s10856-013-4968-4.
13. **Cusano AM**, Burlinson P, Deveau A, Vion P, Uroz S, Preston GM, Frey-Klett P. *Pseudomonas fluorescens* BBc6R8 type III secretion mutants no longer promote ectomycorrhizal symbiosis. *Environ Microbiol Rep*. 2011 Apr;3(2):203-10. doi: 10.1111/j.1758-2229.2010.00209.x.
14. **Cusano AM**, Mekmouche Y, Meglecz E, Tron T. Plasticity of laccase generated by homeologous recombination in yeast. *FEBS J*. 2009 Oct;276(19):5471-80. doi: 10.1111/j.1742-4658.2009.07231.x.
15. Balland V, Hureau C, **Cusano AM**, Liu Y, Tron T, Limoges B. Oriented immobilization of a fully active monolayer of histidine-tagged recombinant laccase on modified gold electrodes. *Chemistry*. 2008;14(24):7186-92. doi: 10.1002/chem.200800368.
16. de Pascale D, **Cusano AM**, Autore F, Parrilli E, di Prisco G, Marino G, Tutino ML. The cold-active Lip1 lipase from the Antarctic bacterium *Pseudoalteromonas haloplanktis* TAC125 is a member of a new bacterial lipolytic enzyme family. *Extremophiles*. 2008 May;12(3):311-23. doi: 10.1007/s00792-008-0163-9.
17. Parrilli, E., Cusano, A.M., Giuliani, M. et al. Cell engineering of *Pseudoalteromonas haloplanktis* TAC125: construction of a mutant strain with reduced exo-proteolytic activity. *Microb Cell Fact* 5, P36 (2006). <https://doi.org/10.1186/1475-2859-5-S1-P36>
18. **Cusano AM**, Parrilli E, Marino G, Tutino ML. A novel genetic system for recombinant protein secretion in the Antarctic *Pseudoalteromonas haloplanktis* TAC125. *Microb Cell*

Fact. 2006 Dec 14;5:40. PubMed PMID: 17169153; PubMed Central PMCID: PMC1766363.

19. **Cusano AM**, Parrilli E, Duilio A, Sannia G, Marino G, Tutino ML. Secretion of psychrophilic alpha-amylase deletion mutants in *Pseudoalteromonas haloplanktis* TAC125. *FEMS Microbiol Lett.* 2006 May;258(1):67-71. PubMed PMID: 16630257.

PATENT

- Patent TO2012A001155 "MULTILAYER MICROPARTICLES COMPRISING FLUOROPHORES, filed on 27/12/2012

Applicant: Fondazione Istituto Italiano di Tecnologia

Inventors: Filippo Causa, Edmondo Battista, Anna Aliberti, **Angela Maria Cusano**, Paolo Netti

Annexes

- Patent TO2012A001154 PROBE SYSTEM FOR DETECTING A SINGLE STRAND TARGET NUCLEOTIDE SEQUENCE, filed on 27/12/2012

Applicant: Fondazione Istituto Italiano di Tecnologia

Inventors: Filippo Causa, Edmondo Battista, Anna Aliberti, **Angela Maria Cusano**, Paolo Netti

- Patent PCT/IB2013/061377 PROBE KIT FOR DETECTING A SINGLE STRAND TARGET NUCLEOTIDE SEQUENCE PATENT. December 27, 2013.

Applicant: Fondazione Istituto Italiano di Tecnologia

Inventors: Causa F, Battista E, Aliberti A, **Cusano AM**, Netti PA,

PROCEEDING

- A. Tutino ML, Parrilli E, Cusano AM, Marino G. Use of the Antarctic *Pseudoalteromonas haloplanktis* TAC125 as efficient host for recombinant protein production at low temperatures Proceedings of International Symposium on Extremophiles and Their Applications International Symposium on Extremophiles and Their Applications 2005-382
- B. Paciello A, **Cusano AM**, Santonicola MG. Bioactive and photoactive PEI hydrogels as platforms for biomolecule immobilization. *European Cells and Materials* Vol. 26. Suppl. 6, 2013 (page 52) ISSN 1473-2262
- C. Causa F, Aliberti A, **Cusano AM**, Battista E, Netti PA. Microgels for multiplex and direct fluorescence detection. *Proc. SPIE 9529, Optical Methods for Inspection, Characterization, and Imaging of Biomaterials II*, 952919 (June 22, 2015); doi:10.1117/12.2185839
- D. Battista E, Causa F, Cusano AM, Di Natale C, Scognamiglio PL, Mazzarotta A, Celetti G, Cosenza C, Aliberti A, Netti PA. Multifunctional microgels for direct, multiplexed and high sensitive detection. *Procedia technology* 27, 31-32