# Caterina Gabriele, Ph.D.

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# EDUCATION • PROFESSIONAL DEVELOPMENT

June 2017-May 2018

Term contract worker supporting Reaseach within the research project in Biochemistry and advanced Molecular Biology.

February 2016- January 2017

Term contract worker: "Analisi del profilo glicoproteico di cellule staminali pluripotenti indotte mediante analisi spettrometrica di massa"

August 1st-September 1st, 2015

Term contract worker: "Cellule staminali pluripotenti indotte: aspetti biologici e applicazioni nella clinica e nella ricerca"

PhD in Clinical and Experimental Biotechnology in Urology

2015

Ph.D. Thesis: Glycoprotein Profile in Prostate Cancer

Master degree, 9/S - Class of second level degree in Medical Veterinary and Pharmaceutical Biotechnologies,
University "Magna Graecia of Catanzaro" 2008-2011

• Quantitative Proteomic Analysis applied on metastatic melanoma cell line.

110/110 cum laude

Bachelor degree, 9/S University "Magna Graecia of Catanzaro"

2005-2008

• linvolvement of the protein of the Mismatch Repair MLH1 in melanoma cells treated with UV radiations

110/110 cum laude

# SPECIALIZED TRAINING

| i.   | Clinical Day, pre-congress HUPO   |                              | October 5th, 2014   |
|------|---|------------------------------|---------------------|
| ii.  | Stem Cells: From Bench to Bedside   |                              | June 7th, 2014      |
| iii. | Q Exactive Biotech Operations   |                              | March 11-13th, 2013 |
| iv.  | Advanced Diagnostics@BTM  |                              | December 18th, 2012 |
| v.   | Morte cardiaca improvvisa. Un approccio multidisciplinare dalla morfologia alla biologia molecolare |                              | 12th January, 2010  |
|      | (Sudden cardiac death. A multidisciplinary approach from morphology to molecular biology)           |                              |                     |
| vi.  | I giovani e le sostanze di abuso  | (Youth and addictive drugs)  | May 14th, 2009      |
| vii. | Biotecnologie e Medicina  | (Biotechnology and Medicine) | June 10th, 2009     |

#### **COMPUTER SKILLS**

Office per Windows (Word, Excel, Powerpoint, Access ) and Mac (iWork11, Pages, Keynote, Numbers), Papers, Mendeley, Photoshop, Cytoscape, Proteome Discoverer, Skyline, Graphpad, EndNote.

Able to work efficiently on many projects under minimal supervision, with people of any nationality, and with attention to details. Excellent organization, planning and problem solving skills, high ability to travel worldwide.

• Precise and reliable scientist with experience in glycoproteomics and biomarker discovery (1 International peer-reviewed publications, 4 international conferences).

Languages: Fluent in English written and spoken.

<u>Computer skills</u>: Strong proficiency in Computer Science.

Driving License (B, accepted in EU).

Completely open to relocation and working travels.

# **CAREER HIGHLIGHTS**

#### **HUPO Conference Madrid**

October 5-8th, 2014

Poster Presentation "N-linked Glycoprotein profiling for biomarker discovery in colorectal cancer".

#### **SIBBM Conference Trento**

June 13th, 2014

Poster Presentation "N-linked Glycoprotein profiling for biomarker discovery in colorectal cancer".

### **HUPO Conference Yokohama**

September 14-18th, 2013

Poster Presentation "N-linked glycoprotein profiling of prostate cancer tissue by 180 labeling and high resolution mass spectrometry";

Poster Presentation "N-linked Glycoprotein Profiling for Colorectal Cancer Biomarker Discovery using High Resolution Quadrupole-Orbitrap Mass Spectrometry and 18O Isotopic Labeling".

## **SCI Conference Palermo**

December 2<sup>nd</sup>-3<sup>rd</sup>, 2010

Poster Presentation "Indagine sperimentale per la messa a punto di un intervento di bonifica per l'ex discarica rsu di tufolo-farina di Crotone". (Experimental investigation for the development of a remediation for the former landfill of RSU Tufolo-flour Crotone)

Poster Presentation "Utilità della determinazione quantitative del topiramato in FID". (Usefulness of the quantitative determination of topiramate in FID)

# AREAS OF STRENGTH

Molecular Biology:

Western Blotting

Cellular Biology:

Stabilized cell cultures.

Proteomics:

Protein extraction, digestion and purification from various samples (ie tissues, cells, serum). Different protein (SDS-PAGE, OFFgel) and peptide (strong cation exchange chromatography, high-pH reversed phase chromatography) fractionation techniques. Glycoprotein enrichment techniques (Solid phase extraction of N-linked glycopeptides, TiO<sub>2</sub> enrichment).

Mass spectrometry:

Sample preparation and purification, in-gel digestion, in-solution digestion, Filter Aided Sample Preparation. Peptide labeling methods (18O labeling, dimethyl labeling) for relative quantification. Qualitative and quantitative analysis, various chromatographic separation methods. Shotgun proteomics, with relative data analysis on bioinformatic tools such as Proteome Discoverer, String, Cytoscape. Direct working experience on Q- Exactive (data independent analysis and data dependent analysis). Use of Skyline for targeted proteomics data analysis.

## Peer-reviewed Publications

Broekman H, Knulst AC, den Hartog Jager CF, van Bilsen JH, Raymakers FM, Kruizinga AG, Gaspari M, Gabriele C, Bruijnzeel-Koomen CA, Houben GF, Verhoeckx KC. *Primary respiratory and food allergy to mealworm.* J Allergy Clin Immunol. 2017 Mar 5. pii: S0091-6749(17)30340-8. doi: 10.1016/j.jaci.2017.01.035.

Taverna D, Mignogna C, <u>Gabriele C</u>, Santise G, Donato G, Cuda G, Gaspari M. *An optimized procedure for on-tissue localized protein digestion and quantification using hydrogel discs and isobaric mass tags: analysis of cardiac myxoma*. **Anal Bioanal Chem.** 2017 Apr;409(11):2919-2930. doi: 10.1007/s00216-017-0237-6. Epub 2017 Feb 11.

Gaspari M, Chiesa L, Nicastri A, <u>Gabriele C</u>, Harper V, Britti D, Cuda G, Procopio A. *Proteome Speciation by Mass Spectrometry: Characterization of Composite Protein Mixtures in Milk Replacers*. **Anal Chem.** 2016 Dec 6;88(23):11568-11574. Epub 2016 Nov 11.

Nicastri A, Gaspari M, Sacco R, Elia L, <u>Gabriele C</u>, Romano R, Rizzuto A, Cuda G. *N-glycoprotein analysis discovers new up-regulated glycoproteins in colorectal cancer tissue.* **J Proteome Res.** 2014 Nov 7;13(11):4932-41. doi: 10.1021/pr500647y. Epub 2014 Oct 9. Impact Factor 5.001.

# REFERENCES

1. Giovanni Cuda, cuda@unicz.it

Poteis Stille

2. Marco Gaspari, gaspari@unicz.it

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Caterina Gabriele