

Presentazione:

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● ESPERIENZA LAVORATIVA

01/04/2021 – 31/03/2022

ASSEGNISTA DI RICERCA CATEGORIA B, TIPO II

01/04/2021-31/03/2022: **assegnista di ricerca categoria B, tipo II**, presso il Dipartimento di Chimica, Facoltà di Scienze Matematiche, Fisiche e Naturali, Università degli Studi di Roma "La Sapienza". Titolo del progetto: "Approccio analitico untargeted, mediante spettrometria di massa ad alta risoluzione per studiare metaboliti e composti nuovi/inaspettati in Antartide" (Settore Scientifico Disciplinare CHIM/01).

01/03/2020 – 28/02/2021

ASSEGNISTA DI RICERCA CATEGORIA B, TIPO II

01/03/2020-28/02/2021: **assegnista di ricerca categoria B, tipo II**, presso il Dipartimento di Chimica, Facoltà di Scienze Matematiche, Fisiche e Naturali, Università degli Studi di Roma "La Sapienza". Titolo del progetto: "Caratterizzazione del profilo molecolare di campioni di neve mediante tecnologie omiche" (Settore Scientifico Disciplinare CHIM/01).

01/03/2017 – 29/02/2020

RICERCATORE A TEMPO DETERMINATO TIPO A

01/03/ 2017-29/02/2020: **Ricercatore a tempo determinato A** presso il Dipartimento di Chimica, Facoltà di Scienze Matematiche, Fisiche e Naturali, Università degli Studi di Roma "La Sapienza", nel settore della Chimica Analitica e delle Scienze della Separazione, Scienze Omiche, e Proteomica (settore concorsuale 03/A1 - Settore Scientifico Disciplinare CHIM/01).

Roma, Italia

01/11/2016 – 28/02/2017

BORSA DI RICERCA

01/11/2016-28/02/2017: **borsista di ricerca** presso il Dipartimento di Chimica, Facoltà di Scienze Matematiche, Fisiche e Naturali, Università degli Studi di Roma "La Sapienza". Borsa di tre mesi, titolo del progetto: "*New materials for enrichment of phosphopeptides in biological matrices*".

Roma, Italia

01/11/2014 – 31/10/2016

ASSEGNISTA DI RICERCA DI CATEGORIA B

01/11/2014-31/10/2016: **assegnista di ricerca di categoria B** presso il Dipartimento di Chimica, Facoltà di Scienze Matematiche, Fisiche e Naturali, Università degli Studi di Roma "La Sapienza". Titolo del progetto: "*Assessment of quality and safety of seafoods by omics sciences*" (Settore Scientifico Disciplinare CHIM/01).

Roma, Italia

ISTRUZIONE E FORMAZIONE

18/12/2014 – Roma, Italia

DOTTORATO DI RICERCA IN SCIENZE CHIMICHE – Università degli Studi di Roma “La Sapienza”

Tesi: *“Proteomic Characterization of Biomedically Interesting Particles by nanoHPLC and High Resolution Mass Spectrometry”*

11/2013 – 05/2014 – Utrecht, Paesi Bassi

VISITING STUDENT – Università di Utrecht, Centro di spettrometria di massa biomolecolare e proteomica del Prof. Heck

Titolo del progetto: *Development of molecular imprinted polymers selective for the enrichment of sulfopeptides in biological samples*

26/01/2010 – Roma, Italia

LAUREA SPECIALISTICA IN CHIMICA – Università degli Studi di Roma “La Sapienza”

Tesi: Addizioni organocatalitiche a cascata.

27/09/2007 – Roma, Italia

LAUREA TRIENNALE IN CHIMICA – Università degli Studi di Roma “La Sapienza”

2004

DIPLOMA DI LICEO LINGUISTICO – Liceo Linguistico Europeo “Santa Giovanna d’Arco”, Vittorio Veneto (TV)

COMPETENZE LINGUISTICHE

Lingua madre: **ITALIANO**

Altre lingue:

	COMPRENSIONE		ESPRESSIONE ORALE		SCRITTURA
	Ascolto	Lettura	Produzione orale	Interazione orale	
INGLESE	B2	B2	B2	B2	B2

Livelli: A1 e A2: Livello elementare B1 e B2: Livello intermedio C1 e C2: Livello avanzato

COMPETENZE DIGITALI

Padronanza del Pacchetto Office (Word Excel PowerPoint ecc) | Posta elettronica | Utilizzo del browser

COMPETENZE PROFESSIONALI

Attività scientifiche di ricerca

I risultati dell'attività scientifica della Dott.ssa Piovesana hanno prodotto 98 pubblicazioni su riviste scientifiche internazionali, 16 comunicazioni orali e 36 poster a congressi nazionali ed internazionali. Le tematiche delle ricerche svolte hanno come oggetto lo sviluppo e la validazione di metodi analitici innovativi basati sulla cromatografia liquida accoppiata alla spettrometria di massa tandem a bassa ed alta risoluzione per la determinazione multianalitica di sostanze naturali e di origine antropica in matrici di tipo ambientale, alimentare, vegetale e biologico.

L'attività scientifica può essere suddivisa in cinque principali linee di ricerca: proteomica e peptidomica (A), peptidomica di peptidi a catena corta (B), lipidomica (C), metabolomica (D) e analisi di piccole molecole in campo alimentare, ambientale e biologico (E).

Indicatori bibliometrici (Scopus, 25/02/2022)

Numero totale di lavori: 101

Articoli: 83

Review: 14

Conference paper: 2

Capitoli di libro: 1

Editorial: 1

Citazioni totali: 2321

h-index: 27

PREMI E RICONOSCIMENTI

Premi e riconoscimenti

Medaglia intitolata **"Gruppo Interdivisionale di Scienza delle Separazioni – Premio Giovane Ricercatore"** consegnata in occasione degli *Incontri di Scienza delle Separazioni*, Napoli, 28-29 novembre 2019.

Premio Giovane Ricercatore Chimica Analitica consegnato in occasione del *XXVI Congresso Nazionale della Società Chimica Italiana*, Paestum (SA), 10-14 settembre 2017.

Premio Giovane Ricercatore Bioanalitica consegnato in occasione delle *Giornate di Chimica Analitica in memoria del Prof. Francesco Dondi*, Ferrara, 10-11 luglio 2017.

Premio per il miglior poster al *Settimo Convegno Giovani Le frontiere della chimica nel nuovo millennio*, Roma, 14-15 giugno 2016.

Premio Genzo Shimadzu Oral Award per la migliore comunicazione orale al *40th International Symposium on Capillary Chromatography (ISCC) and 13th GCxGC Symposium (GCxGC)*, Riva del Garda, 29 maggio-03 giugno 2016.

Premio per la miglior comunicazione orale al *Quinto Convegno Giovani La Chimica per lo Sviluppo*, Roma, 12-13 giugno 2012.

● PROGETTI DI RICERCA FINANZIATI

Progetti di ricerca finanziati

2021 Progetto per Avvio alla Ricerca - Tipo 2: Development of new materials for enrichment of peptides with post-translational modifications

Finanziamento: € 2200 (Università degli Studi di Roma "La Sapienza"-12 mesi) Ruolo: proponente

2020 Progetto per Avvio alla Ricerca - Tipo 2: Development of a Sample Preparation Workflow for Sulfopeptides, from Enrichment to Identification

Finanziamento: € 3000 (Università degli Studi di Roma "La Sapienza"-12 mesi) Ruolo: proponente

2017 Finanziamento alla ricerca di base riservato ai ricercatori universitari e professori associati universitari - **FFABR** – MIUR: € 3000

2017 Progetto di ricerca medio: Development of new materials for the enrichment of phosphopeptides in complex real matrices within the framework of shotgun phosphoproteomics

Finanziamento: € 11000 (+ assegno € 23750) (Università degli Studi di Roma "La Sapienza"-36 mesi) Ruolo: proponente

2016 Progetto di avvio alla ricerca: Development of innovative carbon composite materials for phosphopeptide enrichment

Finanziamento: € 3435 (Università degli Studi di Roma "La Sapienza"-12 mesi) Ruolo: proponente

2015 Progetto di avvio alla ricerca: Development of new separation technologies based on polydopamine coating

Finanziamento: € 3000 (Università degli Studi di Roma "La Sapienza"-12 mesi) Ruolo: proponente

2013 Progetto di avvio alla ricerca: Peptidomic study of naturally occurring peptides in serum

Finanziamento: € 2000 (Università degli Studi di Roma "La Sapienza"-12 mesi) Ruolo: proponente

2012 Progetto di avvio alla ricerca: Shotgun proteomics study of platelet microparticles

Finanziamento: € 2000 (Università degli Studi di Roma "La Sapienza"-12 mesi) Ruolo: proponente

● ATTIVITÀ DI INSEGNAMENTO

Attività di insegnamento

A. A. 2019-2020: Chimica Analitica I con Laboratorio [1020315], Corso di Studi in Chimica L-27, Facoltà di Scienze Matematiche, Fisiche e Naturali, Università degli Studi di Roma "La Sapienza" (6 CFU su 9 CFU totali, relativi alla sola attività di laboratorio).

A. A. 2018-2019: Chimica Analitica I con Laboratorio [1020315], Corso di Studi in Chimica L-27, Facoltà di Scienze Matematiche, Fisiche e Naturali, Università degli Studi di Roma "La Sapienza" (9 CFU suddivisi in 3 CFU di didattica frontale e 6 CFU per attività di laboratorio).

A. A. 2017-2018: Chimica Analitica I con Laboratorio [1020315], Corso di Studi in Chimica L-27, Facoltà di Scienze Matematiche, Fisiche e Naturali, Università degli Studi di Roma "La Sapienza" (6 CFU su 9 CFU totali, suddivisi in 3 CFU di didattica frontale e 3 CFU di attività di laboratorio).

A. A. 2015-2016 e 2016-2017: 323/43 R – Scienze chimiche ed epidemiologiche – chimica generale ed inorganica, Tecniche della prevenzione nell'ambiente e nei luoghi di lavoro – Facoltà di Medicina e Psicologia Azienda Ospedaliera Sant'Andrea, Università degli Studi di Roma "La Sapienza" (2 CFU).

2010

1-Unsaturated beta-ketoesters as versatile electrophiles in organocatalysis

S. Piovesana, D.M. Scarpino Schietroma, L.G. Tulli, M.R. Monaco, M. Bella. Unsaturated beta-ketoesters as versatile electrophiles in organocatalysis. *Chemical Communications*, 2010, 46:5160-5162. DOI: 10.1039/c003296d;

2011

2-Multiple catalysis with two chiral units: an additional dimension for asymmetric synthesis

S. Piovesana, D.M. Scarpino Schietroma, M. Bella. Multiple catalysis with two chiral units: an additional dimension for asymmetric synthesis. *Angewandte Chemie International Edition*, 2011, 50:6216-6232. DOI: 10.1002/anie.201005955.

2012

3-Comparison of three different enrichment strategies for serum low molecular weight protein identification using shotgun proteomics approach

A.L. Capriotti, G. Caruso, C. Cavaliere, **S. Piovesana**, R. Samperi, A. Laganà. Comparison of three different enrichment strategies for serum low molecular weight protein identification using shotgun proteomics approach. *Analytica Chimica Acta*, 2012, 740:58-65. DOI: 10.1016/j.aca.2012.06.033

2012

4-Multiclass screening method based on solvent extraction and liquid chromatography-tandem mass spectrometry for the determination of antimicrobials and mycotoxins in egg

A.L. Capriotti, C. Cavaliere, **S. Piovesana**, R. Samperi, A. Laganà. Multiclass screening method based on solvent extraction and liquid chromatography-tandem mass spectrometry for the determination of antimicrobials and mycotoxins in egg. *Journal of Chromatography A*, 2012, 1268:84-90. DOI: 10.1016/j.chroma.2012.10.040

2013

5-Recent trends in matrix solid-phase dispersion

A.L. Capriotti, C. Cavaliere, A. Laganà, **S. Piovesana**, R. Samperi. Recent trends in matrix solid-phase dispersion. *TrAC - Trends in Analytical Chemistry*, 2013, 43:53-66. DOI: 10.1016/j.trac.2012.09.021

2013

6-Proteomic characterization of human platelet-derived microparticles

A.L. Capriotti, G. Caruso, C. Cavaliere, **S. Piovesana**, R. Samperi, A. Laganà. Proteomic characterization of human platelet-derived microparticles. *Analytica Chimica Acta*, 2013, 776:57-63. DOI: 10.1016/j.aca.2013.03.023

2013

7-Determination of enantioselectivity and enantiomeric excess by mass spectrometry in the absence of chiral chromatographic separation: An Overview

S. Piovesana, R. Samperi, A. Laganà, M. Bella. Determination of enantioselectivity and enantiomeric excess by mass spectrometry in the absence of chiral chromatographic separation: An Overview. *Chemistry - A European Journal*, 2013, 19:11478-11494. DOI: 10.1002/chem.201300233

2013

8-Proteomic platform for the identification of proteins in olive (*Olea europaea*) pulp

A.L. Capriotti, C. Cavaliere, P. Foglia, **S. Piovesana**, R. Samperi, S. Stampachiacchiere, A. Laganà. Proteomic platform for the identification of proteins in olive (*Olea europaea*) pulp. *Analytica Chimica Acta*, 2013, 800:36-42. DOI: 10.1016/j.aca.2013.09.014

2013

9-Analytical strategies based on chromatography-mass spectrometry for the determination of estrogen-mimicking compounds in food

A.L. Capriotti, C. Cavaliere, V. Colapicchioni, **S. Piovesana**, R. Samperi, A. Laganà. Analytical strategies based on chromatography-mass spectrometry for the determination of estrogen-mimicking compounds in food. *Journal of Chromatography A*, 2013, 1313:62-77. DOI: 10.1016/j.chroma.2013.06.054

2013

10-Proteome investigation of the non-model plant pomegranate (*Punica granatum* L)

A.L. Capriotti, G. Caruso, C. Cavaliere, P. Foglia, **S. Piovesana**, R. Samperi, A. Laganà. Proteome investigation of the non-model plant pomegranate (*Punica granatum* L). *Analytical and Bionalytical Chemistry*, 2013, 405:9301-9309. DOI: 10.1007/s00216-013-7382-3

2013

11-High performance liquid chromatography tandem mass spectrometry determination of perfluorinated acids in cow milk

A.L. Capriotti, C. Cavaliere, A. Cavazzini, P. Foglia, A. Laganà, **S. Piovesana**, R. Samperi. High performance liquid chromatography tandem mass spectrometry determination of perfluorinated acids in cow milk. *Journal of Chromatography A*, 2013, 1319:72-79. DOI: 10.1016/j.chroma.2013.10.029

2014

12-Proteomic study of a tolerant genotype of durum wheat under salt-stress conditions

A.L. Capriotti, G.M. Borrelli, V. Colapicchioni, R. Papa, **S. Piovesana**, R. Samperi, S. Stampachiacchiere, A. Laganà. Proteomic study of a tolerant genotype of durum wheat under salt-stress conditions. *Analytical and Bionalytical Chemistry*, 2014, 406:1423-1435. DOI: 10.1007/s00216-013-7549-y

2014

13-Effect of polyethyleneglycol (PEG) chain length on the bio-nano-interactions between PEGylated lipid nanoparticles and biological fluids: from nanostructure to uptake in cancer cells

D. Pozzi, V. Colapicchioni, G. Caracciolo, **S. Piovesana**, A.L. Capriotti, S. Palchetti, S. De Grossi, A. Riccioli, H. Amenitsch, A. Laganà. Effect of polyethyleneglycol (PEG) chain length on the bio-nano-interactions between PEGylated lipid nanoparticles and biological fluids: from nanostructure to uptake in cancer cells. *Nanoscale*, 2014, 6:2782-2792. DOI: 10.1039/c3nr05559k

2014

14-Heterosis profile of sunflower leaves: A label free proteomics approach

M. Mohayeji, A.L. Capriotti, C. Cavaliere, **S. Piovesana**, R. Samperi, S. Stampachiacchiere, M. Toorchi, A. Laganà. Heterosis profile of sunflower leaves: A label free proteomics approach. *Journal of Proteomics*, 2014, 99:101-110. DOI: 10.1016/j.jprot.2014.01.028

2014

15-Analytical methods for characterizing the nanoparticle-protein corona

A.L. Capriotti, G. Caracciolo, C. Cavaliere, V. Colapicchioni, **S. Piovesana**, D. Pozzi, A. Laganà. Analytical methods for characterizing the nanoparticle-protein corona. *Chromatographia*, 2014, 406:1423–1435. DOI: 10.1007/s10337-014-2677-x

2014

16-Development of an analytical strategy for the identification of potential bioactive peptides generated by in vitro tryptic digestion of fish muscle proteins

A.L. Capriotti, C. Cavaliere, P. Foglia, **S. Piovesana**, R. Samperi, R. Zenezini Chiozzi, A. Laganà. Development of an analytical strategy for the identification of potential bioactive peptides generated by in vitro tryptic digestion of fish muscle proteins. *Analytical and Bioanalytical Chemistry*, 2014, 407:845-854. DOI: 10.1007/s00216-014-8094-z

2014

17-The liposome-protein corona in mice and humans and its implications for in vivo delivery

G. Caracciolo, D. Pozzi, A.L. Capriotti, C. Cavaliere, **S. Piovesana**, G. La Barbera, A. Amici, A. Laganà. The liposome-protein corona in mice and humans and its implications for in vivo delivery. *Journal of Materials Chemistry B*, 2014, 2:7419-7428. DOI: 10.1039/c4tb01316f

2014

18-A proteomics-based methodology to investigate the protein corona effect for targeted drug delivery

D. Pozzi, G. Caracciolo, A.L. Capriotti, C. Cavaliere, **S. Piovesana**, V. Colapicchioni, S. Palchetti, A. Riccioli, A. Laganà. A proteomics-based methodology to investigate the protein corona effect for targeted drug delivery. *Molecular BioSystems*, 2014, 10:2815-2819. DOI: 10.1039/c4mb00292j

2014

19-Multiresidue determination of UV filters in water samples by solid phase extraction and liquid chromatography-tandem mass spectrometry analysis

A.L. Capriotti, C. Cavaliere, **S. Piovesana**, R. Samperi, S. Stampacchiacchiere, S. Ventura, A. Laganà. Multiresidue determination of UV filters in water samples by solid phase extraction and liquid chromatography-tandem mass spectrometry analysis. *Journal of Separation Science*, 2014, 37:2882-2891. DOI: 10.1002/jssc.201400708

2015

20-Chromatographic methods coupled to mass spectrometry detection for the determination of phenolic acids in plants and fruits

A.L. Capriotti, C. Cavaliere, P. Foglia, **S. Piovesana**, S. Ventura, Chromatographic methods coupled to mass spectrometry detection for the determination of phenolic acids in plants and fruits. *Journal of Liquid Chromatography & Related Technologies*, 2015, 38:353–370. DOI: 10.1080/10826076.2014.941263

2015

21-Lipid composition: A “key factor” for the rational manipulation of the liposome-protein corona by liposome design

G. Caracciolo, D. Pozzi, A.L. Capriotti, C. Cavaliere, **S. Piovesana**, H. Amenitsch, A. Laganà. Lipid composition: A “key factor” for the rational manipulation of the liposome-protein corona by liposome design. *RSC Advances*, 2015, 5:5967-5975. DOI: 10.1039/C4RA13335H

2015

22-Peptidome characterization and bioactivity analysis of donkey milk

S. Piovesana, A.L. Capriotti, C. Cavaliere, G. La Barbera, R. Samperi, R. Zenezini Chiozzi, A. Laganà. Peptidome characterization and bioactivity analysis of donkey milk. *Journal of Proteomics*, 2015, 119:21-29. DOI: 10.1016/j.jprot.2015.01.020

2015

23-Characterization of quinoa seed proteome combining different protein precipitation techniques: Improvement of knowledge of nonmodel plant proteomics

A.L. Capriotti, C. Cavaliere, **S. Piovesana**, S. Stampachiacchiere, S. Ventura, R. Zenezini Chiozzi, A. Laganà. Characterization of quinoa seed proteome combining different protein precipitation techniques: Improvement of knowledge of nonmodel plant proteomics. *Journal of Separation Science*, 2015, 38:1017-1025. DOI: 10.1002/jssc.201401319

2015

24-Development of a rapid LC-MS/MS method for the determination of emerging fusarium mycotoxins enniatins and beauvericin in human biological fluids

A.B. Serrano, A.L. Capriotti, C. Cavaliere, **S. Piovesana**, R. Samperi, S. Ventura, A. Laganà. Development of a rapid LC-MS/MS method for the determination of emerging fusarium mycotoxins enniatins and beauvericin in human biological fluids. *Toxins*, 2015, 7:3554-3571. DOI: 10.3390/toxins7093554

2015

25-Simultaneous determination of naturally occurring estrogens and mycoestrogens in milk by ultrahigh-performance liquid chromatography–tandem mass spectrometry analysis

A.L. Capriotti, C. Cavaliere, **S. Piovesana**, S. Stampachiacchiere, R. Samperi, S. Ventura, A. Laganà. Simultaneous determination of naturally occurring estrogens and mycoestrogens in milk by ultrahigh-performance liquid chromatography–tandem mass spectrometry analysis. *Journal of Agricultural and Food Chemistry*, 2015, 63:8940-8946. DOI: 10.1021/acs.jafc.5b02815

2015

26-Natural estrogens in dairy products: Determination of free and conjugated forms by ultra high performance liquid chromatography with tandem mass spectrometry

C. Cavaliere, A.L. Capriotti, P. Foglia, **S. Piovesana**, R. Samperi, S. Ventura, A. Laganà. Natural estrogens in dairy products: Determination of free and conjugated forms by ultra high performance liquid chromatography with tandem mass spectrometry. *Journal of Separation Science*, 2015, 38:3599-3606. DOI: 10.1002/jssc.201500549

2016

27-Labeling and label free shotgun proteomics approaches to characterize muscle tissue from farmed and wild gilthead sea bream (*Sparus aurata*)

S. Piovesana, A.L. Capriotti, G. Caruso, C. Cavaliere, G. La Barbera, R. Zenezini Chiozzi, A. Laganà. Labeling and label free shotgun proteomics approaches to characterize muscle tissue from farmed and wild gilthead sea bream (*Sparus aurata*). *Journal of Chromatography A*, 2016, 1428:193-201. DOI:10.1016/j.chroma.2015.07.049

2016

28-Recent trends in the analysis of bioactive peptides in milk and dairy products

A.L. Capriotti, C. Cavaliere, **S. Piovesana**, R. Samperi, A. Laganà. Recent trends in the analysis of bioactive peptides in milk and dairy products. *Analytical and Bioanalytical Chemistry*, 2016, 408:2677-2685. DOI: 10.1007/s00216-016-9303-8

2016

29-Phosphopeptide enrichment: development of magnetic solid phase extraction method based on polydopamine coating and Ti⁴⁺-IMAC

S. Piovesana, A.L. Capriotti, C. Cavaliere, F. Ferraris, R. Samperi, S. Ventura, A. Laganà. Phosphopeptide enrichment: development of magnetic solid phase extraction method based on polydopamine coating and Ti⁴⁺-IMAC. *Analytica Chimica Acta*, 2016, 909:67-74. DOI: 10.1016/j.aca.2016.01.008

2016

30-Polydopamine coated magnetic nanoparticles for isolation and enrichment of estrogenic compounds from water samples followed by liquid chromatography-tandem mass spectrometry determination

A.L. Capriotti, C. Cavaliere, G. La Barbera, **S. Piovesana**, R. Samperi, R. Zenezini Chiozzi, A. Laganà. Polydopamine coated magnetic nanoparticles for isolation and enrichment of estrogenic compounds from water samples followed by liquid chromatography-tandem mass spectrometry determination. *Analytical and Bioanalytical Chemistry*, 2016, 408:4011-4020. DOI: 10.1007/s00216-016-9489-9

2016

31-Purification and identification of endogenous antioxidant and ACE-inhibitory peptides from donkey milk by multidimensional liquid chromatography and nanoHPLC-high resolution mass spectrometry

R. Zenezini Chiozzi, A.L. Capriotti, C. Cavaliere, G. La Barbera, **S. Piovesana**, R. Samperi, A. Laganà. Purification and identification of endogenous antioxidant and ACE-inhibitory peptides from donkey milk by multidimensional liquid chromatography and nanoHPLC-high resolution mass spectrometry. *Analytical and Bioanalytical Chemistry*, 2016, 408:5657-5666. DOI: 10.1007/s00216-016-9672-z

2016

32-Membrane proteome functional characterization of breast cancer initiating cells subjected to bone morphogenetic protein signaling inhibition by dorsomorphin

S. Piovesana*, A.L. Capriotti, V. Colapicchioni, F. Ferraris, G. La Barbera, S. Ventura. Membrane proteome functional characterization of breast cancer initiating cells subjected to bone morphogenetic protein signaling inhibition by dorsomorphin. *Medicinal Chemistry Research*, 2016, 25:1971-1979. DOI: 10.1007/s00044-016-1657-0

2016

33-Identification of three novel angiotensin converting enzyme inhibitory peptides derived from cauliflower by-products by multidimensional liquid chromatography and bioinformatics

R. Zenezini Chiozzi, A.L. Capriotti, C. Cavaliere, G. La Barbera, **S. Piovesana**, A. Laganà. Identification of three novel angiotensin converting enzyme inhibitory peptides derived from cauliflower by-products by multidimensional liquid chromatography and bioinformatics. *Journal of Functional Foods*, 2016, 27:262-273. DOI: 10.1016/j.jff.2016.09.010

2016

34-New magnetic graphitized carbon black TiO₂ composite for phosphopeptide selective enrichment in shotgun phosphoproteomics

S. Piovesana, A.L. Capriotti C. Cavaliere, F. Ferraris, D. Iglesias, S. Marchesan, A. Laganà. New magnetic graphitized carbon black TiO₂ composite for phosphopeptide selective enrichment in shotgun phosphoproteomics. *Analytical Chemistry*. 2016, 88:12043-12050. DOI: 10.1021/acs.analchem.6b02345

2017

35-Magnetic materials for the selective analysis of peptide and protein biomarkers

S. Piovesana, A.L. Capriotti. Magnetic materials for the selective analysis of peptide and protein biomarkers. *Current Medicinal Chemistry*, 2017, 24: 438-453. DOI: 10.2174/0929867323666160805121905

2017

36-Comprehensive polyphenol profiling of a strawberry extract (*Fragaria* × *ananassa*) by ultra-high-performance liquid chromatography coupled with high-resolution mass spectrometry

G. La Barbera, A.L. Capriotti, C. Cavaliere, **S. Piovesana**, R. Samperi, R. Zenezini Chiozzi, A. Laganà. Comprehensive polyphenol profiling of a strawberry extract (*Fragaria* × *ananassa*) by ultra-high-performance liquid chromatography coupled with high-resolution mass spectrometry. *Analytical and Bioanalytical Chemistry*, 2017, 409:2127-2142. DOI: 10.1007/s00216-016-0159-8

2017

37-A multidimensional liquid chromatography-tandem mass spectrometry platform to improve protein identification in high-throughput shotgun proteomics

A.L. Capriotti, C. Cavaliere, A. Cavazzini, F. Gasparrini, G. Pierri, **S. Piovesana**, A. Laganà. A multidimensional liquid chromatography-tandem mass spectrometry platform to improve protein identification in high-throughput shotgun proteomics. *Journal of Chromatography A*, 2017, 1498:176-182. DOI: 10.1016/j.chroma.2017.03.032

2017

38-Evaluation of column length and particle size effect on the untargeted profiling of a phytochemical mixture by means of ultra-high performance liquid chromatography coupled to high resolution mass spectrometry

R. Zenezini Chiozzi, A.L. Capriotti, C. Cavaliere, F. Ferraris, G. La Barbera, **S. Piovesana**, A. Laganà. Evaluation of column length and particle size effect on the untargeted profiling of a phytochemical mixture by means of ultra-high performance liquid chromatography coupled to high resolution mass spectrometry. *Journal of Separation Science*, 2017, 40:2541-2557. DOI:10.1002/jssc.201700135

2017

39-A new carbon-based magnetic material for the dispersive solid phase extraction of UV filters from water samples before liquid chromatography-tandem mass spectrometry analysis

S. Piovesana, A.L. Capriotti, C. Cavaliere, G. La Barbera, R. Samperi, R. Zenezini Chiozzi, A. Laganà. A new carbon-based magnetic material for the dispersive solid phase extraction of UV filters from water samples before liquid chromatography-tandem mass spectrometry analysis. *Analytical and Bioanalytical Chemistry*, 2017, 409:4181-4194. DOI: 10.1007/s00216-017-0368-9

2017

40-Proteomic analysis and bioluminescent reporter gene assays to investigate effects of simulated microgravity on Caco-2 cells

G. La Barbera, A.L. Capriotti, E. Michelini, **S. Piovesana**, M.M. Calabretta, R. Zenezini Chiozzi, A. Roda, A. Laganà. Proteomic analysis and bioluminescent reporter gene assays to investigate effects of simulated microgravity on Caco-2 cells, *Proteomics*, 2017, 17:1700081. DOI: 10.1002/pmic.201700081

2017

41- Liquid chromatography-high resolution mass spectrometry for the analysis of phytochemicals in vegetal-derived food and beverages

G. La Barbera, A.L. Capriotti, C. Cavaliere, C.M. Montone, **S. Piovesana***, R. Samperi, R. Zenezini Chiozzi, A. Laganà. Liquid chromatography-high resolution mass spectrometry for the analysis of phytochemicals in vegetal-derived food and beverages. *Food Research International*, 2017, 100:28-52. DOI: 10.1016/j.foodres.2017.07.080

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42-Label free shotgun proteomics approach to characterize muscle tissue from farmed and wild European sea bass (*Dicentrarchus labrax*)

R. Zenezini Chiozzi, A.L. Capriotti, C. Cavaliere, G. La Barbera, C.M. Montone, **S. Piovesana**, A. Laganà. Label free shotgun proteomics approach to characterize muscle tissue from farmed and wild European sea bass (*Dicentrarchus labrax*). *Food Analytical Methods*, 2018, 292-301. DOI: 10.1007/s12161-017-0999-7

2018

43-New Ti-IMAC magnetic polymeric nanoparticles for phosphopeptide enrichment from complex real samples

A.L. Capriotti, C. Cavaliere, F. Ferraris, V. Gianotti, M. Laus, **S. Piovesana***, K. Sparnacci, R. Zenezini Chiozzi, A. Laganà. New Ti-IMAC magnetic polymeric nanoparticles for phosphopeptide enrichment from complex real samples. *Talanta*, 2018, 178:274-281. DOI: 10.1016/j.talanta.2017.09.010

2018

44-Development of an enrichment method for endogenous phosphopeptide characterization in human serum

G. La Barbera, A.L. Capriotti, C. Cavaliere, F. Ferraris, M. Laus, **S. Piovesana***, K. Sparnacci, A. Laganà. Development of an enrichment method for endogenous phosphopeptide characterization in human serum. *Analytical and Bioanalytical Chemistry*, 2018, 410:1177-1185. DOI: 10.1007/s00216-017-0822-8

2018

45-Chromatographic column evaluation for the untargeted profiling of glucosinolates in cauliflower by means of ultra-high performance liquid chromatography coupled to high resolution mass spectrometry

A.L. Capriotti, C. Cavaliere, G. La Barbera, C.M. Montone, **S. Piovesana**, R. Zenezini Chiozzi, A. Laganà, Chromatographic column evaluation for the untargeted profiling of glucosinolates in cauliflower by means of ultra-high performance liquid chromatography coupled to high resolution mass spectrometry. *Talanta*, 2018, 179:792-802. DOI: doi.org/10.1016/j.talanta.2017.12.019

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46-Recent trends and analytical challenges in plant bioactive peptide separation, identification and validation

S. Piovesana, A.L. Capriotti, C. Cavaliere, G. La Barbera, C.M. Montone, R. Zenezini Chiozzi, A. Laganà. Recent trends and analytical challenges in plant bioactive peptide separation, identification and validation. *Analytical and Bioanalytical Chemistry*, 2018, 410:3425-3444. DOI: 10.1007/s00216-018-0852-x

2018

47-Peptidomic strategy for purification and identification of potential ACE-Inhibitory and antioxidant peptides in *Tetradismus obliquus* microalgae

C.M. Montone, A.L. Capriotti, C. Cavaliere, G. La Barbera, **S. Piovesana**, R. Zenezini Chiozzi, A. Laganà. Peptidomic strategy for purification and identification of potential ACE-Inhibitory and antioxidant peptides in *Tetradismus obliquus* microalgae. *Analytical and Bioanalytical Chemistry*, 2018, 410:3573-3586. DOI: 10.1007/s00216-018-0925-x

2018

48-Characterization of antioxidant and angiotensin-converting enzyme inhibitory peptides derived from cauliflower by-products by multidimensional liquid chromatography and bioinformatics

C.M. Montone, A.L. Capriotti, C. Cavaliere, G. La Barbera, **S. Piovesana**, R. Zenezini Chiozzi, A. Laganà. Characterization of antioxidant and angiotensin-converting enzyme inhibitory peptides derived from cauliflower by-products by multidimensional liquid chromatography and bioinformatics. *Journal of Functional Foods*, 2018, 44:40-47. DOI: 10.1016/j.jff.2018.02.022

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49-Saliva as a source of new phosphopeptide biomarkers: development of a comprehensive analytical method based on shotgun peptidomics

G. La Barbera, A.L. Capriotti, C. Cavaliere, F. Ferraris, C.M. Montone, **S. Piovesana***, R. Zenezini Chiozzi, A. Laganà. Saliva as a source of new phosphopeptide biomarkers: development of a comprehensive analytical method based on shotgun peptidomics. *Talanta*, 2018, 183:245-249. DOI: 10.1016/j.talanta.2018.02.085

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50-Extraction of polycyclic aromatic hydrocarbons from polyhydroxyalkanoates before gas chromatography/mass spectrometry analysis

C. Cavaliere, C.M. Montone, A.L. Capriotti, G. La Barbera, **S. Piovesana**, M. Rotatori, F. Valentino, A. Laganà. Extraction of polycyclic aromatic hydrocarbons from polyhydroxyalkanoates before gas chromatography/mass spectrometry analysis. *Talanta*, 2018, 188:671-675. DOI: 10.1016/j.talanta.2018.06.038

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51-Simultaneous preconcentration, identification, and quantitation of selenoamino acids in oils by enantioselective high performance liquid chromatography and mass spectrometry

A.L. Capriotti, C.M. Montone, M. Antonelli, C. Cavaliere, F. Gasparrini, G. La Barbera, **S. Piovesana***, A. Laganà. Simultaneous preconcentration, identification, and quantitation of selenoamino acids in oils by enantioselective high performance liquid chromatography and mass spectrometry. *Analytical Chemistry*, 2018, 90:8326-8330. DOI: 10.1021/acs.analchem.8b02089

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52-Delving into the polar lipidome by optimized chromatographic separation, high resolution mass spectrometry and comprehensive identification with Lipostar: microalgae as case study

G. La Barbera, M. Antonelli, C. Cavaliere, G. Cruciani, L. Goracci, C.M. Montone, **S. Piovesana***, A. Laganà, A.L. Capriotti. Delving into the polar lipidome by optimized chromatographic separation, high resolution mass spectrometry and comprehensive identification with Lipostar: microalgae as case study. *Analytical Chemistry*, 2018, 90:12230-12238. DOI: 10.1021/acs.analchem.8b03482

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53-Liquid chromatographic strategies for separation of bioactive compounds in food matrices

C. Cavaliere, A.L. Capriotti, G. La Barbera, C.M. Montone, **S. Piovesana**, A. Laganà. Liquid chromatographic strategies for separation of bioactive compounds in food matrices. *Molecules* 2018, 23:3091. DOI: 10.3390/molecules23123091

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54-Investigation of free seleno-amino acids in extra-virgin olive oil by mixed mode solid phase extraction cleanup and enantioselective hydrophilic interaction liquid chromatography-tandem mass spectrometry

S. Piovesana, C.M. Montone, M. Antonelli, C. Cavaliere, G. La Barbera, S. Canepari, R. Samperi, A. Laganà, A.L. Capriotti. Investigation of free seleno-amino acids in extra-virgin olive oil by mixed mode solid phase extraction cleanup and enantioselective hydrophilic interaction liquid chromatography-tandem mass spectrometry. *Food Chemistry*, 2019, 278:17-25. DOI: 10.1016/j.foodchem.2018.11.053

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55-Peptides from cauliflower by-products, obtained by an efficient, ecosustainable and semi-industrial method, exert protective effects on endothelial function

C. Caliceti, A.L. Capriotti, D. Calabria, F. Bonvicini, R. Zenezini Chiozzi, C.M. Montone, **S. Piovesana**, M. Zangheri, M. Mirasoli, P. Simoni, A. Laganà, A. Roda. Peptides from cauliflower by-products, obtained by an efficient, ecosustainable and semi-industrial method, exert protective effects on endothelial function. *Oxidative Medicine and Cellular Longevity*, 2019, 2019:1046504. DOI: 10.1155/2019/1046504

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56-Sensitive untargeted identification of short hydrophilic peptides by high performance liquid chromatography on porous graphitic carbon coupled to high resolution mass spectrometry

S. Piovesana, C.M. Montone, C. Cavaliere, C. Crescenzi, G. La Barbera, A. Laganà, A.L. Capriotti. Sensitive untargeted identification of short hydrophilic peptides by high performance liquid chromatography on porous graphitic carbon coupled to high resolution mass spectrometry. *Journal of Chromatography A*, 2019, 1590:73-79. DOI: 10.1016/j.chroma.2018.12.066

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57-Liposome protein corona characterization as a new approach in nanomedicine

A.L. Capriotti, C. Cavaliere, **S. Piovesana*** Liposome protein corona characterization as a new approach in nanomedicine. *Analytical and Bioanalytical Chemistry*, 2019, 411:4313-4326. DOI: 10.1007/s00216-019-01656-x

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58-Investigation of free and conjugated seleno-amino acids in wheat bran by hydrophilic interaction liquid chromatography with tandem mass spectrometry

C.M. Montone, M. Antonelli, A.L. Capriotti, C. Cavaliere, G. La Barbera, **S. Piovesana**, A. Laganà. Investigation of free and conjugated seleno-amino acids in wheat bran by hydrophilic interaction liquid chromatography with tandem mass spectrometry. *Journal of Separation Science*, 2019, 42:1938-1947. DOI: 10.1002/jssc.201900047

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59-Identification of bioactive short peptides in cow milk by high-performance liquid chromatography on C18 and porous graphitic carbon coupled to high-resolution mass spectrometry

C.M. Montone, A.L. Capriotti, A. Cerrato, C. M. Antonelli, G. La Barbera, **S. Piovesana**, A. Laganà, C. Cavaliere. Identification of bioactive short peptides in cow milk by high-performance liquid chromatography on C18 and porous graphitic carbon coupled to high-resolution mass spectrometry. *Analytical and Bioanalytical Chemistry*, 2019, 411:3395-3404. DOI: 10.1007/s00216-019-01815-0

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60-Recent applications of magnetic solid phase extraction for sample preparation

A.L. Capriotti, C. Cavaliere, G. La Barbera, C.M. Montone, **S. Piovesana***, A. Laganà. Recent applications of magnetic solid phase extraction for sample preparation. *Chromatographia*, 2019, 82:1251-1274. DOI: 10.1007/s10337-019-03721-0

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61-Development of an analytical method for the metaproteomic investigation of bioaerosol from work environments

S. Piovesana, A.L. Capriotti, P. Foglia, C.M. Montone, G. La Barbera, R. Zenezini Chiozzi, A. Laganà, C. Cavaliere. Development of an analytical method for the metaproteomic investigation of bioaerosol from work environments. *Proteomics*, 2019, 19:e1900152. DOI: 10.1002/pmic.201900152

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62-Enrichment procedure based on graphitized carbon black and liquid chromatography-high resolution mass spectrometry for elucidating sulfolipids composition of microalgae

M. Antonelli, B. Benedetti, C. Cavaliere, A. Cerrato, G. La Barbera, C.M. Montone, **S. Piovesana**, A. Laganà. Enrichment procedure based on graphitized carbon black and liquid chromatography-high resolution mass spectrometry for elucidating sulfolipids composition of microalgae. *Talanta*, 2019, 205:120162. DOI: 10.1016/j.talanta.2019.120162

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63-Graphitized carbon black enrichment and UHPLC-MS/MS allow to meet the challenge of small chain peptidomics in urine

S. Piovesana, A.L. Capriotti, A. Cerrato, C. Crescenzi, G. La Barbera, A. Laganà, C.M. Montone, C. Cavaliere. Graphitized carbon black enrichment and UHPLC-MS/MS allow to meet the challenge of small chain peptidomics in urine. *Analytical Chemistry*, 2019, 91:11474-11481. DOI: [10.1021/acs.analchem.9b03034](https://doi.org/10.1021/acs.analchem.9b03034)

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64-A novel magnetic molecular imprinted polymer for selective extraction of zearalenone from cereal flours before liquid chromatography-tandem mass spectrometry determination

C. Cavaliere, M. Antonelli, A. Cerrato, G. La Barbera, A. Laganà, M. Laus, **S. Piovesana**, A. Laura Capriotti. A novel magnetic molecular imprinted polymer for selective extraction of zearalenone from cereal flours before liquid chromatography-tandem mass spectrometry determination. *Toxins*, 2019, 11:E493. DOI: 10.3390/toxins11090493

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65-A triple quadrupole and a hybrid quadrupole Orbitrap mass spectrometer in comparison for polyphenol quantitation

C. Cavaliere, M. Antonelli, A.L. Capriotti, G. La Barbera, C.M. Montone, **S. Piovesana**, A. Laganà. A triple quadrupole and a hybrid quadrupole Orbitrap mass spectrometer in comparison for polyphenol quantitation. *Journal of Agricultural and Food Chemistry*, 2019, 67:4885-4896. DOI: 10.1021/acs.jafc.8b07163

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66-Effect of shell structure of Ti-immobilized metal ion affinity chromatography core-shell magnetic particles for phosphopeptide enrichment

A.L. Capriotti, M. Antonelli, D. Antonioli, C. Cavaliere, R. Chiarcos, V. Gianotti, **S. Piovesana***, K. Sparnacci, M. Laus, A. Laganà. Effect of shell structure of Ti-immobilized metal ion affinity chromatography core-shell magnetic particles for phosphopeptide enrichment. *Scientific Reports*, 2019, 9:15782. DOI: 10.1038/s41598-019-51995-z

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C.M. Montone, R. Zenenzini Chiozzi, N. Marchetti, A. Cerrato, M. Antonelli, A.L. Capriotti, C. Cavaliere, **S. Piovesana**, A. Laganà. Peptidomic approach for the identification of peptides with potential antioxidant and anti-hypertensive effects derived from asparagus by-products. *Molecules*, 2019, 24: E3627. DOI: 10.3390/molecules24193627

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68-Phospholipidome of extra virgin olive oil: development of a solid phase extraction protocol followed by liquid chromatography - high resolution mass spectrometry for its software-assisted identification

M. Antonelli, B. Benedetti, C. Cavaliere, A. Cerrato, C.M. Montone, **S. Piovesana**, A. Laganà, A.L. Capriotti. Phospholipidome of extra virgin olive oil: development of a solid phase extraction protocol followed by liquid chromatography - high resolution mass spectrometry for its software-assisted identification. *Food Chemistry*, 2020, 310:125860. DOI: 10.1016/j.foodchem.2019.125860

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69-A comprehensive analysis of liposomal biomolecular corona upon human plasma incubation: the evolution towards the lipid corona

G. La Barbera, A.L. Capriotti, G. Caracciolo, C. Cavaliere, A. Cerrato, C.M. Montone, **S. Piovesana**, D. Pozzi, E. Quagliarini, A. Laganà. A comprehensive analysis of liposomal biomolecular corona upon human plasma incubation: the evolution towards the lipid corona. *Talanta*, 2020, 209:120487. DOI: 10.1016/j.talanta.2019.120487

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70-New insights in hemp chemical composition: a comprehensive polar lipidome characterization by combining solid phase enrichment, high-resolution mass spectrometry, and cheminformatics

M. Antonelli, B. Benedetti, G. Cannazza, A. Cerrato, C. Citti, C.M. Montone, **S. Piovesana**, A. Laganà. New insights in hemp chemical composition: a comprehensive polar lipidome characterization by combining solid phase enrichment, high-resolution mass spectrometry, and cheminformatics. *Analytical and Bioanalytical Chemistry*, 2020, 412:413-423. DOI: 10.1007/s00216-019-02247-6

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71-A clean-up strategy for identification of circulating endogenous short peptides in human plasma by zwitterionic hydrophilic liquid chromatography and untargeted peptidomics identification

S. Piovesana, A. Cerrato, M. Antonelli, B. Benedetti, A.L. Capriotti, C. Cavaliere, C.M. Montone, A. Laganà. A clean-up strategy for identification of circulating endogenous short peptides in human plasma by zwitterionic hydrophilic liquid chromatography and untargeted peptidomics identification. *Journal of Chromatography A*, 2020, 1613:460699. DOI: 10.1016/j.chroma.2019.460699

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72-A new software-assisted analytical workflow based on high-resolution mass spectrometry for the systematic study of phenolic compounds in complex matrices

A. Cerrato, G. Cannazza, A.L. Capriotti, C. Citti, G. La Barbera, A. Laganà, C.M. Montone, **S. Piovesana**, C. Cavaliere. A new software-assisted analytical workflow based on high-resolution mass spectrometry for the systematic study of phenolic compounds in complex matrices. *Talanta*, 2020, 209:120573. DOI: 10.1016/j.talanta.2019.120573

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S. Piovesana, A.L. Capriotti, C. Cavaliere, K. Sparnacci, V. Gianotti, M. Laus, D. Antonioli, A. Laganà. Magnetic molecularly imprinted multishell particles for zearalenone recognition. *Polymer*, 2020, 188:122102. DOI: 10.1016/j.polymer.2019.122102

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74-Carbon nanostructure morphology templates nanocomposites for phosphoproteomics

S. Piovesana, D. Iglesias, M. Melle-Franco, S. Kralj, C. Cavaliere, M. Melchionna, A. Laganà, A.L. Capriotti, S. Marchesan. Carbon nanostructure morphology templates nanocomposites for phosphoproteomics. *Nano Research*, 2020, 13:380-388. DOI 10.1007/s12274-020-2620-4

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75-Does the protein corona take over the selectivity of molecularly imprinted nanoparticles? The biological challenges to recognition

A.L. Capriotti, **S. Piovesana**, R. Zenezini Chiozzi, C.M. Montone, A.M. Bossi, A. Laganà. Does the protein corona take over the selectivity of molecularly imprinted nanoparticles? The biological challenges to recognition. *Journal of Proteomics*, 2020, 219:103736. DOI: 10.1016/j.jprot.2020.103736

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76-Development of a Sample Preparation Workflow for Sulfopeptide Enrichment: from Target Analysis to Challenges in Shotgun Sulfoproteomics

A.L. Capriotti, A. Cerrato, A. Laganà, C.M. Montone, **S. Piovesana***, R. Zenezini Chiozzi, C. Cavaliere. Development of a Sample Preparation Workflow for Sulfopeptide Enrichment: from Target Analysis to Challenges in Shotgun Sulfoproteomics. *Analytical Chemistry*, 2020, 92:7964-7971. DOI: 10.1021/acs.analchem.0c01342

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77-Untargeted Characterization of Chestnut (*Castanea sativa* Mill.) Shell Polyphenol Extract: A Valued Bioresource for Prostate Cancer Cell Growth Inhibition

N.A. Cacciola, A. Cerrato, A.L. Capriotti, C. Cavaliere, M. Dapolito, C.M. Montone, **S. Piovesana**, G. Squillaci, G. Peluso, A. Laganà. Untargeted Characterization of Chestnut (*Castanea sativa* Mill.) Shell Polyphenol Extract: A Valued Bioresource for Prostate Cancer Cell Growth Inhibition. *Molecules*, 2020, 25:2730. DOI: 10.3390/molecules25122730

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78-Improved identification of phytocannabinoids using a dedicated structure-based workflow

C.M. Montone, A. Cerrato, B. Botta, G. Cannazza, A.L. Capriotti, C. Cavaliere, C. Citti, F. Ghirga, **S. Piovesana**, A. Laganà. Improved identification of phytocannabinoids using a dedicated structure-based workflow. *Talanta*, 2020, 219:121310. DOI: 10.1016/j.talanta.2020.121310

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79-A new opening for the tricky untargeted investigation of natural and modified short peptides

A. Cerrato, S.E. Aita, A.L. Capriotti, C. Cavaliere, C.M. Montone, A. Laganà, **S. Piovesana**. A new opening for the tricky untargeted investigation of natural and modified short peptides. *Talanta*, 2020, 219:121262. DOI: 10.1016/j.talanta.2020.121262

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80-Identification and antimicrobial activity of medium-sized and short peptides from yellowfin tuna (*Thunnus Albacares*) simulated gastrointestinal digestion

A. Cerrato, A.L. Capriotti, F. Capuano, C. Cavaliere, A.M.I. Montone, C. Maria Montone, **S. Piovesana**, R. Zenezini Chiozzi, A. Laganà. Identification and antimicrobial activity of medium-sized and short peptides from yellowfin tuna (*Thunnus Albacares*) simulated gastrointestinal digestion. *Foods*, 2020, 9:1185. DOI: 10.3390/foods9091185

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81-Developments and pitfalls in the characterization of phenolic compounds in food: from targeted analysis to metabolomics-based approaches

S. Piovesana, C. Cavaliere, A. Cerrato, C.M. Montone, A. Laganà, A.L. Capriotti. Developments and pitfalls in the characterization of phenolic compounds in food: from targeted analysis to metabolomics-based approaches. *TrAC Trends in Analytical Chemistry*, 2020, 133:116083. DOI: 10.1016/j.trac.2020.116083

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82-Comprehensive Identification of Native Medium-Sized and Short Bioactive Peptides in Sea Bass Muscle

A. Cerrato, S.E. Aita, C. Cavaliere, A. Laganà, C.M. Montone, **S. Piovesana***, R. Zenezini Chiozzi, A.L. Capriotti. Comprehensive Identification of Native Medium-Sized and Short Bioactive Peptides in Sea Bass Muscle. *Food Chemistry*, 2020, 343:128443. DOI: 10.1016/j.foodchem.2020.128443

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83-A rapid and innovative extraction and enrichment method for the metaproteomic characterization of dissolved organic matter in groundwater samples

A.L. Capriotti, S.E. Aita, C. Cavaliere, A. Cerrato, C.M. Montone, **S. Piovesana**, A. Laganà. A rapid and innovative extraction and enrichment method for the metaproteomic characterization of dissolved organic matter in groundwater samples. *Journal of Separation Science*, 2020, online ahead of print. DOI: 10.1002/jssc.202001025

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84-Degradation of the polar lipid and fatty acid molecular species in extra virgin olive oil during storage based on shotgun lipidomics

A.L. Capriotti, A. Cerrato, S.E. Aita, C.M. Montone, **S. Piovesana**, A. Laganà, C. Cavaliere. Degradation of the polar lipid and fatty acid molecular species in extra virgin olive oil during storage based on shotgun lipidomics. *Journal of Chromatography A*, 2021, 1639: 461881. DOI: 10.1016/j.chroma.2021.461881

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85-In-depth cannabis fatty acid profiling by ultra-high performance liquid chromatography coupled to high resolution mass spectrometry

S. Piovesana, S.E. Aita, G. Cannazza, A.L. Capriotti, C. Cavaliere, A. Cerrato, P. Guarnaccia, C.M. Montone, A. Laganà. In-depth cannabis fatty acid profiling by ultra-high performance liquid chromatography coupled to high resolution mass spectrometry. *Talanta*, 2021, 228:122249.

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86-Untargeted metabolomics of prostate cancer zwitterionic and positively charged compounds in urine

A. Cerrato, C. Bedia, A.L. Capriotti, C. Cavaliere, V. Gentile, M. Maggi, C.M. Montone, **S. Piovesana**, A. Sciarra, R. Tauler, A. Laganà. Untargeted metabolomics of prostate cancer zwitterionic and positively charged compounds in urine. *Analytica Chimica Acta*, 2021, 1158, 338381. DOI: 10.1016/j.aca.2021.338381

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87-Phytocannabinomics: Untargeted metabolomics as a tool for cannabis chemovar differentiation

A. Cerrato, C. Citti, G. Cannazza, A.L. Capriotti, C. Cavaliere, G. Grassi, F. Marini, C.M. Montone, R. Paris, **S. Piovesana**, A. Laganà. Phytocannabinomics: Untargeted metabolomics as a tool for cannabis chemovar differentiation. *Talanta*, 2021, 230:122313. DOI: 10.1016/j.talanta.2021.122313

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88-Andean Blueberry of the Genus Disterigma: A High-Resolution Mass Spectrometric Approach for the Comprehensive Characterization of Phenolic Compounds

S.E. Aita, A.L. Capriotti, C. Cavaliere, A. Cerrato, B. Giannelli Moneta C.M. Montone, **S. Piovesana**, A. Laganà. Andean Blueberry of the Genus Disterigma: A High-Resolution Mass Spectrometric Approach for the Comprehensive Characterization of Phenolic Compounds. *Separations*, 2021, 8:58. DOI: 10.3390/separations8050058

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89-Production and Characterization of Medium-Sized and Short Antioxidant Peptides from Soy Flour-Simulated Gastrointestinal Hydrolysate

C. Cavaliere, A.M.I. Montone, S.E. Aita, R. Capparelli, A. Cerrato, P. Cuomo, A. Laganà, C.M. Montone, **S. Piovesana**, A.L. Capriotti. Production and Characterization of Medium-Sized and Short Antioxidant Peptides from Soy Flour-Simulated Gastrointestinal Hydrolysate. *Antioxidants*, 2021, 10:734. DOI: 10.3390/antiox10050734

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90-Optimal centrifugal isolating of liposome-protein complexes from human plasma

L. Digiaco, F. Giulimondi, A.L. Capriotti, **S. Piovesana**, C.M. Montone, R. Zenezini Chiozzi, A. Laganà, M. Mahmoudi, D. Pozzi, G. Caracciolo. Optimal centrifugal isolating of liposome-protein complexes from human plasma. *Nanoscale Advances*, 2021, 3:3824-3834. DOI: 10.1039/D1NA00211B

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91-Profilig and quantitative analysis of underivatized fatty acids in Chlorella vulgaris microalgae by liquid chromatography-high resolution mass spectrometry

C.M. Montone, S.E. Aita, M. Catani, C. Cavaliere, A. Cerrato, **S. Piovesana**, A. Laganà, A.L. Capriotti. Profiling and quantitative analysis of underivatized fatty acids in *Chlorella vulgaris* microalgae by liquid chromatography-high resolution mass spectrometry. *Journal of Separation Science*, 2021, 44:3041-3051. DOI: 10.1002/jssc.202100306

2021

92-Targeted and untargeted characterization of underivatized policosanols in hemp inflorescence by liquid chromatography-high resolution mass spectrometry

C.M. Montone, S.E. Aita, G. Cannazza, C. Cavaliere, A. Cerrato, C. Citti, L. Mondello, **S. Piovesana***, A. Laganà, A.L. Capriotti. Targeted and untargeted characterization of underivatized policosanols in hemp inflorescence by liquid chromatography-high resolution mass spectrometry. *Talanta*, 2021, 235:122778. DOI: 10.1016/j.talanta.2021.122778

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93-Recent applications of mass spectrometry for the characterization of cannabis and hemp phytocannabinoids: from targeted to untargeted analysis

A.L. Capriotti, G. Cannazza, M. Catani, C. Cavaliere, A. Cavazzini, A. Cerrato, C. Citti, S. Felletti, C.M. Montone, **S. Piovesana***, A. Laganà. Recent applications of mass spectrometry for the characterization of cannabis and hemp phytocannabinoids: from targeted to untargeted analysis. *Journal of Chromatography A*, 2021, 1655:462492. DOI: 10.1016/j.chroma.2021.462492

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94-High-resolution mass spectrometry and chemometrics for the detailed characterization of short endogenous peptides in milk by-products

C.M. Montone, S. Elsa Aita, C. Cavaliere, A. Cerrato, A. Laganà, **S. Piovesana**, A.L. Capriotti. High-resolution mass spectrometry and chemometrics for the detailed characterization of short endogenous peptides in milk by-products. *Molecules*, 2021, 26: 6472. DOI:10.3390/molecules26216472

95-Untargeted analysis of contaminants in river water samples: comparison between two different sorbents for solid-phase extraction followed by liquid chromatography-high-resolution mass spectrometry determination

C. Cavaliere, C.M. Montone, B. Giannelli Moneta, S.E. Aita, F. Aulenta, A. Cerrato, S. Fazi, A. Laganà, V. Paolini, F. Petracchini, **S. Piovesana**, A.L. Capriotti. Untargeted analysis of contaminants in river water samples: comparison between two different sorbents for solid-phase extraction followed by liquid chromatography-high-resolution mass spectrometry determination. *Microchemical Journal*, 2022, 172(Part A):106979. DOI: 10.1016/j.microc.2021.106979

96-Fully Automatized Detection of Phosphocholine-Containing Lipids through an Isotopically Labeled Buffer Modification Workflow

A. Cerrato, S.E. Aita, A.L. Capriotti, C. Cavaliere, C.M. Montone, **S. Piovesana**, A. Laganà. Fully Automatized Detection of Phosphocholine-Containing Lipids through an Isotopically Labeled Buffer Modification Workflow. *Analytical Chemistry*, 2021, 93:15042–15048. DOI: 10.1021/acs.analchem.1c02944

2022

97-Detailed investigation of the composition and transformations of phenolic compounds in fresh and fermented *Vaccinium Floribundum* berry extracts by high-resolution mass spectrometry and bioinformatics

A. Cerrato, **S. Piovesana**, S.E. Aita, C. Cavaliere, S. Felletti, A. Laganà, C.M. Montone, C. Vargas-de-la-Cruz, A.L. Capriotti. Detailed investigation of the composition and transformations of phenolic compounds in fresh and fermented *Vaccinium Floribundum* berry extracts by high-resolution mass spectrometry and bioinformatics. *Phytochemical Analysis*, 2022, online ahead of print. DOI: 10.1002/pca.3105

2021

98-Characterization of the Trans-Epithelial Transport of Green Tea (*C. sinensis*) Catechin Extracts with In Vitro Inhibitory Effect against the SARS-CoV-2 Papain-like Protease Activity

C.M. Montone, S.E. Aita, A. Arnoldi, A.L. Capriotti, C. Cavaliere, A. Cerrato, C. Lammi, **S. Piovesana**, G. Ranaldi, A. Laganà. Characterization of the Trans-Epithelial Transport of Green Tea (*C. sinensis*) Catechin Extracts with In Vitro Inhibitory Effect against the SARS-CoV-2 Papain-like Protease Activity. *Molecules*, 2021, 26, 6744. DOI: 10.3390/molecules26216744

99-K. Sparnacci, D. Antonioli, V. Gianotti, M. Laus, A. Laganà, **S. Piovesana**. Multishell hybrid magnetic nanoparticles for phosphopeptide enrichment. *AIP Conference Proceedings* 2018, 1981: 020174. DOI: 10.1063/1.5046036

100-A.L. Capriotti, G. La Barbera, **S. Piovesana***, Recent Trends in Solid-Phase Extraction for Environmental, Food and Biological Sample Preparation. *Chromatographia*, 2019, 82:1119–1120. DOI: 10.1007/s10337-019-03762-5

Capitoli di libri

Cerrato, A., Capriotti, A.L., Montone, C.M., Aita, S.E., Cannazza, G., Citti, C., **Piovesana, S.**, Aldo, L. (2021) Analytical Methodologies for Lipidomics in Hemp Plant. In: Hsu FF. (eds) Mass Spectrometry-Based Lipidomics. Methods in Molecular Biology, vol 2306, pp. 257-273. Humana, New York, NY. https://doi.org/10.1007/978-1-0716-1410-5_17

● COMUNICAZIONI ORALI A CONFERENZE

Comunicazioni orali a conferenze internazionali

[1] **S. Piovesana**, A.L. Capriotti, F. Ferraris, A. Laganà “New materials for magnetic solid phase extraction and enrichment of phosphorylated peptides” 40th ISCC Symposium, Riva del Garda, 29 maggio-3 giugno 2016. **Premiato con il Genzo Shimadzu Oral Award come miglior comunicazione orale.**

[2] **S. Piovesana**, A.L. Capriotti, V. Mancinelli, V. Trionfera, R. Zenezini Chiozzi, A. Laganà “Phosphopeptide selective enrichment by new affinity chromatography magnetic phases based on polydopamine and graphitized carbon black” 6th EuCheMS Chemistry Congress, Siviglia, 11-15 settembre 2016.

[3] **S. Piovesana**, C. Cavaliere, F. Ferraris, G. La Barbera, R. Zenezini Chiozzi, A. Laganà “Development of new magnetic materials in shotgun phosphoproteomics” MYCS - Merck Young Chemists Symposium, Rimini, 25-27 ottobre 2016. ISBN: 978-88-86208-92-5

[4] G. La Barbera, M. Antonelli, B. Benedetti, A. Cerrato, G. Cruciani, L. Goracci, C.M. Montone, **S. Piovesana**, A. Laganà. “Delving into the Polar Lipidome of Microalgae by Optimized Chromatographic Separation, High-Resolution Mass Spectrometry, and Comprehensive Identification with Lipostar” 48TH International Symposium on High-Performance Liquid Phase Separations and Related Techniques, Milano, 16-20 giugno 2019.

[5] **S. Piovesana**, C.M. Montone, A. Cerrato, C. Cavaliere, A. Laganà. “Sulfopeptide enrichment and identification by liquid chromatography-mass spectrometry” AMYC-Biomed 2021, 3-5 novembre 2021. Conferenza virtuale.

Comunicazioni orali a conferenze nazionali

- [1] **S. Piovesana**, F. Ferraris, P. Foglia, G. La Barbera, R. Samperi, R. Zenezini Chiozzi, A. Laganà. "Studio dell'interfaccia nano-bio di liposomi mediante analisi proteomica shotgun" Incontri di Scienza delle Separazioni 2014, Roma, 12 dicembre, 2014.
- [2] C. Cavaliere, F. Ferraris, G. La Barbera, **S. Piovesana**, A. Puglisi, A. Laganà "Peptidomic and bioactivity study on the peptides isolated in commercial donkey milk" Bioanalitica 2015, Firenze, 26 giugno, 2015
- [3] **S. Piovesana**, A.L. Capriotti, F. Ferraris, R. Samperi, A. Laganà "Post-translational modifications: development of new materials for the enrichment of phosphopeptides" XXV Congresso della Divisione di Chimica Analitica della Società Chimica Italiana, Trieste, 13 – 17 settembre, 2015. ISBN: 978-88-907670-2-9
- [4] A.L. Capriotti, **S. Piovesana**, R. Zenezini Chiozzi, A. Laganà "Development of new composite magnetic phases for phosphopeptides isolation in shotgun phosphoproteomics" Bioanalitica 2016, Bologna, 4 luglio, 2016
- [5] A.L. Capriotti, F. Ferraris, **S. Piovesana**, A. Laganà "Preparation of new composite materials for phosphopeptide enrichment in shotgun phosphoproteomics" XXVI Congresso della Divisione di Chimica Analitica, Giardini Naxos, 18-22 settembre 2016. ISBN: 978-88-86208-91-8
- [6] **S. Piovesana. Keynote lecture** "Shotgun Phosphoproteomics of Complex Real Samples by New Magnetic Materials" Giornate di chimica analitica in memoria del Prof. Francesco Dondi Recenti sviluppi in Scienze delle Separazioni e Bioanalitica, Ferrara, 10-11 luglio 2017. **"Premio Giovane Ricercatore Bioanalitica"**
- [7] **S. Piovesana. Keynote lecture** "Cutting-edge developments in shotgun proteomics, peptidomics and shotgun phosphoproteomics in real matrices" XXVI Congresso Nazionale della Società Chimica Italiana, Paestum (SA), 10-14 settembre 2017. **"Premio Giovane Ricercatore Chimica Analitica"**
- [8] **S. Piovesana. Keynote lecture** "Separation and Enrichment of Peptides and Amino Acids: a Piece in the Puzzle of the Bioactivity of Protein Derivatives" XXVII Congresso della Divisione di Chimica Analitica, Bologna (Bo), 16-20 settembre 2018
- [9] **S. Piovesana**, M. Antonelli, B. Benedetti, A. Cerrato, C.M. Montone, A. Laganà. "Unravelling the bioactivity potential of complex matrices: focusing on lipids and unusual amino acids in oils" XXVIII Congress of the Analytical Chemistry Division, Bari, 22-26 settembre 2019
- [10] **S. Piovesana. Keynote lecture** "Challenges and New Developments in Shotgun Phosphoproteomics for Complex Real-World Samples" Incontri di Scienza delle Separazioni, Napoli, 28-29 novembre 2019. **Medaglia "Gruppo Interdivisionale di Scienza delle Separazioni – Premio Giovane Ricercatore"**
- [11] **S. Piovesana. Invited lecture** "New trends for the enrichment and liquid chromatography-mass spectrometry analysis of peptides with protein post-translational modifications", XXVII Congresso Nazionale della Società Chimica Italiana "La chimica guida lo sviluppo sostenibile, 14-23 settembre 2021. Conferenza virtuale

Comunicazioni orali a conferenze locali

- [1] A.L. Capriotti, C. Cavaliere, A. Laganà, **S. Piovesana**, R. Samperi "Proteome characterization of platelet microparticles by nanoHPLC/high resolution mass spectrometry" Quinto Convegno Giovani - La chimica per lo sviluppo. Roma, 12-13 giugno 2012, Roma: Edizioni Nuova Cultura, p. 35-36, ISBN/ISSN: 9788861348226, doi: 10.448/8226-10.

● ABILITAZIONE SCIENTIFICA NAZIONALE

28/03/2018 – 28/03/2027

Abilitazione scientifica nazionale

Abilitazione scientifica nazionale, II Fascia, settore concorsuale 03/A1, Chimica Analitica, Bando D.D. 1532/2016 (valido dal 28/03/2018 al 28/03/2027, art. 16, comma 1, Legge 240/10).

● EDITORIAL BOARDS E GUEST EDITORS

2019 – ATTUALE

Editorial boards e guest editors

Luglio 2021-: Review Editor dell'Editorial Board di Environmental Analysis (specialty section of Frontiers in Analytical Science).

Ottobre 2019-: Section Editorial Board della rivista *Molecules* per la sezione Analytical Chemistry.

2019: Guest editor della rivista *Chromatographia* per la Topical collection "Recent Trends in Solid-Phase Extraction for Environmental, Food and Biological Sample Preparation" con guest editors Anna Laura Capriotti, Giorgia La Barbera, e Susy Piovesana. Editorial relativo a questa Topical Collection: A.L. Capriotti, G. La Barbera, **S. Piovesana***, *Chromatographia*, 2019, 82:1119–1120. DOI: 10.1007/s10337-019-03762-5

2020: Guest editor della rivista *Applied Sciences* per lo Special Issue "Application of Nanomaterials/ Nanotechnology in Analytical Chemistry" con guest editors Chiara Cavaliere e **Susy Piovesana**.

2020: Guest editor della rivista *Molecules* per lo Special Issue "Advancements in Analytical Techniques for Proteomics" con guest editors **Susy Piovesana**, Carmela Maria Montone e Andrea Cerrato.

2020: Guest Editor della rivista *Applied Sciences* per lo Special Issue: "Application of New Methods for the Determination of Contaminants in Food and Environmental Quality and Safety" con guest editors Chiara Cavaliere e **Susy Piovesana**.

● ATTIVITÀ DI REFERAGGIO PER RIVISTE SCIENTIFICHE INTERNAZIONALI

Attività di referaggio per riviste scientifiche internazionali

Acta Biomaterialia (2019-)
Analytical and Bioanalytical Chemistry (2021-)
Analytica Chimica Acta (2020-)
Analyst (2019-)
Analytical Methods (2016-)
Biomolecules (2019-)
Current Organic Chemistry (2016-);
Data in Brief (2019-)
Expert Opinion on Drug Delivery (2016-)
Food Analytical Methods (2019-)
Food Chemistry (2018-)
Food Research International (2018-)
Foods (2019-)
International Journal of Molecular Sciences (2019-)
Journal of Chromatography A (2016-)
Journal of Food Composition and Analysis (2019-)
Journal of Food Science (2019-)
Journal of Proteomics (2016-);
Journal of the Science of Food and Agriculture (2016-);
Microchemical Journal (2019-)
Microchimica Acta (2019-)
Molecules (2019-)
Nanomedicine (2019-)
RSC Advances (2016-)
TrAC-Trends in Analytical Chemistry (2020-)
Separations (2019-)

● AFFILIAZIONE A SOCIETÀ

2012 – ATTUALE

Membro della Società Chimica Italiana per la Divisione di Chimica Analitica e il Gruppo Interdivisionale di Scienza delle Separazioni.
