

CURRICULUM VITAE

PERSONAL INFORMATION

Name, Surname	MARIA STAIANO
Address	ISTITUTO DI SCIENZE DELL'ALIMENTAZIONE
House number, street name, postcode, city, country	VIA ROMA,64 83100 Avellino Italy
Telephone/FAX	+39 0825 299 101
E-mail	maria.staiano@cnr.it
Website	http://www.isa.cnr.it/web/?page_id=4026
Nationality	Italian
Place and Date of birth	Roma 25 february 1965
Education and training	Dr. in Biological Sciences at the University of Naples "Federico II", Italy; PhD in General Biology and Pathophysiology at the University of Siena, Italy.

CURRENT POSITION	Scientist with a tenured position ISTITUTO DI SCIENZE DELL'ALIMENTAZIONE -CNR
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RESEARCH ACTIVITIES	Study of structural and functional properties of proteins and enzymes. Advanced biotechnological applications of proteins and enzymes for the design of innovative biosensors for food safety, homeland security and medical applications.
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Work experience

International Projects	European Program Horizon 2020 Grant N° n. 101000216 "CODE-REFARM (January 2021-2024)
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European Program Horizon 2020 Grant N° n. 101007448 “-GRACED (January 2021-2024)

ENI CBC MED Project TRANSDAIRY (2020-2023)

European Program Horizon 2020 Grant N. 812661 “ENDONANO” – (January 2019)

European Program FP7 Project Grant N 614088 “MARIABOX” (2014-2018);

European Program Horizon 2020 – Grant N 771649 “SWINOSTICS” (2017-2020);

European Program Horizon 2020 Grant N. 731778 “WATERSPY” (2016-2020);

“BIOTYPE EDA” biosensors for microorganism detection; European Defence Agency; (2013)

Participant European Defence Agency “NANOCAP” Project. (2010-2012)

FP7 Project “CUSTOM”. (2009-2014)

Principal Investigator NATO Project between Istituto di Biochimica delle Proteine CNR, Napoli and Russian Academy of Science, San Petersburg Russia. (2009-2010)

National Projects

E-CROPS-TECNOLOGIE PER L'AGRICOLTURA DIGITALE SOSTENIBILE (Progetto PON Ricerca e Innovazione 2014-2020)

Fondo per la Crescita Sostenibile – Bando “Progetti di ricerca e sviluppo negli ambiti tecnologici identificati dal Programma Quadro Horizon 2020” Progetto Pisa (2016-2019)

Project PONTI (2015-2016)

Nuove tecnologie abilitanti per il food safety e l'integrità delle filiere agro-alimentari in uno scenario globale (SAFE&SMART). Progetto Nazionale CLAN (Cluster Agroalimentare Nazionale CTN01_00230_248064) (2014-2017)

Formazione PON a3_0025 BIOforIU-MIUR (2013)

Formazione PON 001585-Biodefensor BIOforIU-MIUR (2013)

Progetto Regionale Agroalimentare "CAMPUS -QUARK" (2012)

Progetto AgroAlimentare "CISIA" CNR (2011-2013)

Progetto Agroalimentare "Innovative biosensors for the detection of the aflatoxin M1 in milk". Granarolo Spa (2010-2011)

Commessa del Dipartimento CNR Bio/Agroalimentare "Progettazione e Realizzazione di avanzati biochip per analisi di interesse alimentare". (2009-2014)

Academic Achievements

Member of the PhD School Applied Biology and Environmental Safeguard, University of Basilicata Italy

Principal subjects occupational skills covered

Associate Editor presso la rivista BMC Biochemistry
Editorial Board Member della rivista Protein & Peptide Letters.

Books and Articles

Emergent Biosensing Technologies Based on Fluorescence Spectroscopy and Surface Plasmon Resonance.

A. Camarca, A. Varriale, A. Capo, A. Pennacchio, A. Calabrese, C. Giannattasio, C. Murillo Almuzara, S. D'Auria, Maria Staiano. *Sensors* (2021) 21, 906.

Spectroscopic Properties of Two 5'-(4-Dimethylamino) Azobenzene Conjugated G-Quadruplex Forming Oligonucleotides

C. Imperatore, A. Varriale, E. Riviuccio, A. Pennacchio, Maria Staiano, S. D'Auria, M. Casertano, C. Altucci, M. Valadan, M. Singh, M. Menna, M. Varra. *Int J Mol Sci* (2020) Sep 26;21(19):7103.

Structural features of the glutamate-binding protein from *Corynebacterium glutamicum*

A. Capo, A. Natalello, J. Marienhagen, A. Pennacchio, A. Camarca, S. Di Giovanni, Maria Staiano, S. D'Auria, A. Varriale *Int J Biol Macromol* (2020) Nov 1; 162:903-912.

Fluorescence polarization assay to detect the presence of traces of ciprofloxacin

H. El Kojok , N. El Darra, M. Khalil, A. Capo , A. Pennacchio, Maria Staiano, A. Camarca, S. D'Auria, A. Varriale . *Sci Rep* (2020) Mar 12;10(1):4550.

Detection of naphthalene in sea-water by a novel optical biosensor

N. Cennamo, L. Zeni, E. Ricca, R. Istickato, VM. Marzullo; A. Capo, Maria Staiano, S. D'Auria, A. Varriale *Talanta* (2019) 194:289-297

The porcine odorant-binding protein as molecular probe for benzene detection

A. Capo, A. Pennacchio, A. Varriale, S. D'Auria, Maria Staiano *PLOS ONE* (2018) Sep 5;13(9): e0202630.

Cloning and bacterial expression systems for recombinant human heparanase production. Substrate specificity investigation by docking of a putative heparanase substrate

A. Pennacchio, A. Capo, S. Caira, A. Tramice, A. Varriale, Maria Staiano, S. D'Auria *Biotech Applied Biochem.* (2018) 65(1):89-98.

A High Sensitivity Biosensor to detect the presence of perfluorinated compounds in environment

N. Cennamo, L. Zeni, P. Tortora, ME. Regonesi, A. Giusti, Maria Staiano, S. D'Auria, A. Varriale *Talanta* (2018) 178:955-961.

Osmolyte-like effect of low GdnHCl concentrations on D-glucose/D-galactose-binding protein

AV. Fonin, AD. Golikova, IA. Zvereva, S. D'Auria, Maria Staiano, VN. Uversky, IM. Kuznetsova, KK. Turoverov
Int. J. Mol. Sci. (2017) 18, 2008

Modern concepts to study molecular interactions

M. Strianese, Maria Staiano, A. Capo, G. Pinto, C. Pellecchia, S. D'Auria
Molecular Systems Design & Engineering (2017), 2, 123–132

Enzymes as Sensors

Maria Staiano, A. Pennacchio, A. Varriale, A. Capo, A. Majoli, C. Capacchione, S. D'Auria
Methods Enzymol. (2017); 589:115-131

High pressure effect on structure and stability of the fluorescent protein monomeric Kusabira Orange

LP. Palmade, DC. Lucia, R. Lange, A. Facchiano, A. Pennacchio, Maria Staiano, S. D'Auria
Biochemistry and Biophysics Reports (2016) 7-138–143

On the possibility of ephedrine detection: A Time-Resolved Fluorescence Resonance Energy Transfer (FRET)-based approach

A. Varriale, VM. Marzullo, S. Di Giovanni, A. Scala, A. Capo, A. Majoli, A. Pennacchio, Maria Staiano, S. D'Auria
Analytical Bio/analytical Chemistry (2016) 408(23):6329-36.

A Shear horizontal surface acoustic wave biosensor for a rapid and specific detection of d-serine

F. Di Pietrantonio, M. Benetti, D. Cannatà, E. Verona, M. Girasole, M. Fosca, S. Dinarelli, Maria Staiano, V.M. Marzullo, A. Varriale, S. D'Auria
Sensors & Actuators: B. Chemical (2016), 226, 1–6

A novel fluorescence polarization assay for determination of penicillin G in milk.

Pennacchio A, Varriale A, Scala A, Marzullo VM, Staiano Maria, S. D'Auria
Food Chem. (2016) 190:381-5.

A Fluorescence Polarization Assay to Detect Steroid Hormone Traces in Milk.

Varriale A, Pennacchio A, Pinto G, Oliviero G, D'Errico S, Majoli A, Scala A, Capo A, Pennacchio A, Di Giovanni S, Staiano Maria, Sabato D'Auria
J Agric Food Chem. (2015) 63(41):9159-64,

A Rapid and Sensitive Assay for the Detection of Benzylpenicillin (Pen G) in milk

A. Pennacchio, A. Varriale, M.G. Esposito, Maria Staiano, S. D'Auria

PLOS ONE (2015) 10(7): e0132396.

An Advanced Near-Infrared Fluorescence Bio/sensing Methodology to Detect the Presence of Traces of Patulin Toxin in Real Food Matrices

A. Pennacchio, A. Varriale, MG. Esposito, Maria Staiano, Sabato D'Auria

Analytical Biochemistry (2015) 481:55-9

Tryptophan residues of the D-Glucose/D-Galactose-binding Protein from *E. coli* localized in its active center does not contribute to the change in intrinsic fluorescence upon glucose binding.

OV. Stepanenko, AV. Fonin, OV. Stepanenko, Maria Staiano, S. D'Auria, IM. Kuznetsova, KK. Turoverov

Journal of Fluorescence (2015) (1):87-94

Easy to use plastic optical fiber-based biosensor for detection of butanal.

N. Cennamo, S. Di Giovanni, A. Varriale, Maria Staiano, F. Di Pietrantonio, A. Notargiacomo, L. Zeni. S. D'Auria

PLOS ONE (2015) 10(3): e0116770.

A surface acoustic wave bio-nose for detection of volatile odorant molecules.

F. Di Pietrantonio, M. Benetti, D. Cannatà, E. Verona, A. Palla-Papavlu, J.-M. Fernández-Pradas, P. Serra, Maria Staiano, A. Varriale, S. D'Auria

Biosensors and Bioelectronics (2015) 15; 67:516-23

A Surface Plasmon Resonance based biochip for the detection of Patulin Toxin.

A. Pennacchio, G. Ruggiero, Maria Staiano, G. Piccialli, G. Oliviero, A. Lewkowicz, A. Synak, S. D'Auria

Optical Materials (2014) Vol. 36,10, 1670-1675.

The trehalose/maltose-binding protein as a sensitive element of a glucose biosensor.

A.V. Fonin, O.I. Povarova, M. Staiano, S. D'Auria, K. K. Turoverov I.M. Kuznetsova

Optical Materials (2014) Vol. 36,10, 1676-1679.

Ausili A, Staiano Maria, Marabotti A, D'Auria G, Gómez-Fernández JC, Torrecillas A, Ortiz A, D'Auria S.

Correlation between fluorescence and structure in the

orange-emitting GFP-like protein, monomeric Kusabira Orange.

J Photochem Photobiol B. (2014) May 15;138C:223-229.

Ruggiero A, Dattelbaum JD, Staiano Maria, Berisio R, D'Auria S, Vitagliano L.

A loose domain swapping organization confers a remarkable stability to the dimeric structure of the arginine binding protein from *Thermotoga maritima*.

PLoS One. (2014) May 15;9(5): e96560.

Stepanenko OV, Stepanenko OV, Staiano Maria, Kuznetsova IM, Turoverov KK, D'Auria S.

The quaternary structure of the recombinant bovine odorant-binding protein is modulated by chemical denaturants.

PLoS One. (2014) Jan 7;9(1)

Varriale A, Marabotti A, Mei G, Staiano Maria, D'Auria S.

Correlation spectroscopy and molecular dynamics simulations to study the structural features of proteins.

PLoS One. (2013) Jun 4;8(6): e64840

Ausili A, Pennacchio A, Staiano Maria, Dattelbaum JD, Fessas d, Schiraldi A, D'Auria S.

Amino acid transport in thermophiles : characterization of an arginine-binding protein from *Thermotoga maritima*. 3. Conformational dynamics and stability.

J.Photochemistry and Photobiology (2013) Jan 5; 118:66-73

Cennamo N, Varriale A, Pennacchio A, Staiano Maria, Massarotti D, Zeni L, D'Auria S.

An Innovative Plastic Optical Fiber-based Biosensor for new Bio/applications. The Case of Celiac Disease.

Sensors and Actuators. B, (2013)176 ; 1008-1014

Di Pietrantonio F, Cannatà D, Benetti M, Verona E, Varriale A, Staiano Maria, D'Auria S.

Detection of odorant molecules via surface acoustic wave biosensor array based on odorant-binding proteins.

Biosensor & Bioelectronics (2013) Mar 15 ;41 :328-34.

Marchal S, Marabotti A, Staiano Maria, Varriale A, Domaschke T, Lange R, D'Auria S.

Under pressure that splits a family in two. The case of lipocalin family.

Plos One (2012).7(11) : e50489.

Varriale, A, Staiano Maria, Marzullo, VM, Strianese, M, Di Giovanni, S, Ruggiero, G, Secchi, A, Dispenza, M, Fiorello, AM, D'Auria S.

A surface plasmon resonance-based biochip to reveal traces of ephedrine.

Analytical methods (2012). 4, 1940-1944 2012

Staiano Maria, Strianese M, Varriale A, Di Giovanni S, Scotto di Mase D, Dell'Angelo V, Ruggiero G, Labella T, Pellecchia C, D'Auria S.

D-Serine-Dehydratase from *Saccaromyces cerevisiae* : A Pyridoxal 5'-phosphate-Dependent Enzyme for Advanced Biotech Applications.

Protein Pept Lett (2012).19(6) :592-5 2012

Di Giovanni S, Varriale A, Marzullo VM, Ruggiero G, Staiano Maria, Secchi A, Pierno L, Fiorello AM, D'Auria S.

Determination of benzyl methyl ketone—a commonly used precursor in amphetamine manufacture.

Analytical Methods, (2012).4, 1847-1864 2012

D'Auria S, Apicella E, Staiano Maria, Di Giovanni S, Ruggiero G, Rossi M, Sarkar P, Luchowski R, Gryczynski I, Gryczynski Z.

Engineering resonance energy transfer for advanced immunoassays: The case of celiac disease.

Analytical Biochemistry (2012).1 ; 425(1) : 13-7 2012

Strianese M, Varriale A, Staiano M, Pellecchia C, D'Auria S.

Absorption into fluorescence. A method to sense biologically relevant gas molecules.

Nanoscale (2011)3(1): 298-302 2011

Ruggiero A, Dattelbaum JD, Pennacchio A, Iozzino L, Staiano Maria, Luchansky MS, Der BS, Berisio R, D'Auria S, Vitagliano L.

Crystallization and preliminary X-ray crystallographic analysis of ligand-free and arginine-bound forms of *Thermotoga maritima* arginine-binding protein.

Acta crystallographica. (2011)1 ; 67(Pt 11) : 1462-5 2011

Stepanenko OV, Fonin AV, Stepanenko OV, Morozova KS, Verkhusha VV, Kuznetsova IM, Turoverov KK, Staiano Maria, D'Auria S.

New insight in protein-ligand interactions. 2. Stability and properties of two mutant forms of the D-galactose/D-glucose-binding protein from *E. coli*.

J. of Physical Chemistry B (2011)28 ;115(29):9022-32 2011

Stepanenko OV, Stepanenko OV, Povarova OI, Fonin AV, Kuznetsova IM, Turoverov KK, Staiano Maria, Varriale A, D'Auria S.

New insight into protein-ligand interactions. The case of the D-galactose/D-glucose-binding protein from *Escherichia coli*.

J. of Physical Chemistry B (2011)31 ;115(12):2765-73 2011

Stepanenko OV, Kuznetsova IM, Verkhusha VV, Staiano Maria, D'Auria S, Turoverov, KK

Denaturation of proteins with beta-barrel topology induced by guanidine hydrochloride.

International Journal of Spectroscopy (2011)

Scirè A, Marabotti A, Staiano Maria, Iozzino L, Luchansky MS, Der BS, Dattelbaum JD, Tanfani F, D'Auria S.

Amino acid transport in thermophiles : characterization of an arginine-binding protein in *Thermotoga maritima*. 2. Molecular organization and structural stability.

Molecular Biosystem (2010) 6(4):687-98

Povarova OI, Stepanenko OV, Sulatskaya AI, Kuznetsova IM, Turoverov KK, Staiano Maria, Vitale A, D'Auria S

High stability of trehalose/maltose binding protein from *Thermococcus litoralis* makes it a good candidate as a sensitive element in biosensor systems for sugar control.

International Journal of Spectroscopy (2010)

Staiano Maria, Baldassarre M, Esposito M, Apicella E, Vitale R, Aurilia V, D'Auria S

New trends in bio/nanotechnology: stable proteins as advanced molecular tools for health and environment.

Environmental Tecnology (2010) 31(8-9) : 935-42

Stepanenko OV, Povarova OI, Stepanenko OV, Fonin AV, Kuznetsova IM, Turoverov KK, Staiano Maria, D'Auria S

Structure and stability of D-galactose/D-glucose-binding protein. The role of D-glucose binding and Ca ion depletion.

International Journal of Spectroscopy (2010)

Scirè A, Marabotti A, Staiano M, Iozzino L, Luchansky MS, Der BS, Dattelbaum JD, Tanfani F, D'Auria S. Amino acid transport in thermophiles: characterization of an arginine-binding protein in *Thermotoga maritima*. 2. Molecular organization and structural stability.

Mol Biosyst. (2010) Apr;6(4):687-98.

Marchal S, Staiano M, Marabotti A, Vitale A, Varriale A, Lange R, D'Auria S. Pressure effects on the structure and stability of the hyperthermophilic trehalose/maltose-binding protein from *Thermococcus litoralis*.

J Phys Chem B. (2009) Sep 24;113(38):12804-8.

Staiano Maria, Matveeva EG, Rossi M, Crescenzo R, Gryczynski Z, Gryczynski I, Iozzino L, Akopova I, D'Auria S.

Nanostructured silver-based surfaces : new emergent

methodologies for an easy detection of analytes.
ACS Applied Materials & Interfaces (2009)1(12) : 2909-2916

Varriale A, Staiano M, Iozzino L, Severino L, Anastasio A, Cortesi ML, D'Auria S. FCS-based sensing for the detection of ochratoxin and neomycin in food.
Protein Pept Lett. 2009;16(12):1425-8.

Scirè A, Marabotti A, Staiano M, Briand L, Varriale A, Bertoli E, Tanfani F, D'Auria S. Structure and stability of a rat odorant-binding protein: another brick in the wall.
J Proteome Res. (2009) Aug;8(8):4005-13.

Varriale A, Staiano Maria, Iozzino L, Severino L, Anastasio A, Cortesi ML, D'Auria S.
FCS-based sensing for the detection of ochratoxin and neomycin in food.
Protein & Peptide Letters (2009)16 : 1425-1428

Marchal S, Staiano Maria Marabotti A, Vitale A, Varriale A, Lange R, D'Auria S.
Pressure effects on the structure and stability of the hyperthermophilic trehalose/maltose-binding protein from *Thermococcus litoralis*.
J. of Physical Chemistry B. (2009) 113 : 12804-12808

Marabotti A, Scirè A, Staiano M, Crescenzo R, Aurilia V, Tanfani F, D'Auria S. Wild-type and mutant bovine odorant-binding proteins to probe the role of the quaternary structure organization in the protein thermal stability.
J Proteome Res. (2008) Dec;7(12):5221-9.

Staiano M, Saviano M, Herman P, Gryczynski Z, Fini C, Varriale A, Parracino A, Kold AB, Rossi M, D'Auria S. Time-resolved fluorescence spectroscopy and molecular dynamics simulations point out the effects of pressure on the stability and dynamics of the porcine odorant-binding protein.
Biopolymers. (2008) Apr;89(4):284-91.

Marabotti A, Lefèvre T, Staiano M, Crescenzo R, Varriale A, Rossi M, Pézolet M, D'Auria S. Mutant bovine odorant-binding protein: Temperature affects the protein stability and dynamics as revealed by infrared spectroscopy and molecular dynamics simulations. *Proteins*. (2008) Aug;72(2):769-78.

Marabotti A, Lefèvre T, Staiano M, Crescenzo R, Varriale A, Rossi M, Pézolet M, D'Auria S. Mutant bovine odorant-binding protein: Temperature affects the protein stability and dynamics as revealed by infrared spectroscopy and molecular dynamics simulations. *Proteins*. (2008) Aug;72(2):769-78.

Staiano M, Saviano M, Herman P, Gryczynski Z, Fini C, Varriale A, Parracino A, Kold AB, Rossi M, D'Auria S. Time-resolved fluorescence spectroscopy and molecular dynamics simulations point out the effects of pressure on the stability and dynamics of the porcine odorant-binding protein. *Biopolymers*. (2008) Apr;89(4):284-91.

Stepanenko OV, Marabotti A, Kuznetsova IM, Turoverov KK, Fini C, Varriale A, Staiano M, Rossi M, D'Auria S. Hydrophobic interactions and ionic networks play an important role in thermal stability and denaturation mechanism of the porcine odorant-binding protein. *Proteins*. (2008) Apr;71(1):35-44.

D'Auria S, Staiano M, Varriale A, Gonnelli M, Marabotti A, Rossi M, Strambini GB. The tryptophan phosphorescence of porcine and mutant bovine odorant-binding proteins: a probe for the local protein structure and dynamics. *J Proteome Res*. (2008) Mar;7(3):1151-8.

De Stefano L, Vitale A, Rea I, Staiano M, Rotiroli L, Labella T, Rendina I, Aurilia V, Rossi M, D'Auria S. Enzymes and proteins from extremophiles as hyperstable probes in nanotechnology: the use of D-trehalose/D-maltose-binding protein from the hyperthermophilic archaeon *Thermococcus litoralis* for sugars monitoring. *Extremophiles*. (2008) Jan;12(1):69-73.

Scognamiglio V, Scirè A, Aurilia V, Staiano M, Crescenzo R, Palmucci C, Bertoli E, Rossi M, Tanfani F, D'Auria S. A strategic fluorescence labeling of D-galactose/D-glucose-binding protein from *Escherichia coli* helps to shed light on the protein structural stability and dynamics. *J Proteome Res*. (2007) Nov;6(11):4119-26.

Scognamiglio V, Aurilia V, Cennamo N, Ringhieri P, Iozzino L, Tartaglia M, Staiano M, Ruggiero G, Orlando P, Labella T, Zeni L, Vitale A, D'Auria S. D-galactose/D-glucose-binding Protein from *Escherichia coli* as Probe for a Non-consuming Glucose Implantable Fluorescence Biosensor. *Sensors (Basel)*. (2007) Oct 24;7(10):2484-2491.

Varriale A, Staiano M, Rossi M, D'Auria S. High-affinity binding of cadmium ions by mouse metallothionein prompting the design of a reversed-displacement protein-based fluorescence biosensor for cadmium detection. *Anal Chem*. (2007) Aug 1;79(15):5760-2.

Staiano M, D'Auria S, Varriale A, Rossi M, Marabotti A, Fini C, Stepanenko OV, Kuznetsova IM, Turoverov KK. Stability and dynamics of the porcine odorant-binding protein.

Biochemistry. (2007) Oct 2;46(39):11120-7

Varriale A, Rossi M, Staiano M, Terpetschnig E, Barbieri B, Rossi M, D'Auria S. Fluorescence correlation spectroscopy assay for gliadin in food.
Anal Chem. (2007) Jun 15;79(12):4687-9.

Fessas D, Staiano M, Barbiroli A, Marabotti A, Schiraldi A, Varriale A, Rossi M, D'Auria S. Molecular adaptation strategies to high temperature and thermal denaturation mechanism of the D-trehalose/D-maltose-binding protein from the hyperthermophilic archaeon *Thermococcus litoralis*.
Proteins. (2007) Jun 1;67(4):1002-9.

Herman P, Barvik I Jr, Staiano M, Vitale A, Vecer J, Rossi M, D'Auria S. Temperature modulates binding specificity and affinity of the d-trehalose/d-maltose-binding protein from the hyperthermophilic archaeon *Thermococcus litoralis*.
Biochim Biophys Acta. (2007) May;1774(5):540-4.

D'Auria S, Varriale A, Gonnelli M, Saviano M, Staiano M, Rossi M, Strambini GB. Tryptophan phosphorescence studies of the D-galactose/D-glucose-binding protein from *Escherichia coli* provide a molecular portrait with structural and dynamics features of the protein.
J Proteome Res. (2007) Apr;6(4):1306-12.

de Champdoré M, Staiano M, Rossi M, D'Auria S. Proteins from extremophiles as stable tools for advanced biotechnological applications of high social interest.
J R Soc Interface. (2007) Apr 22;4(13):183-91.

Structure and stability of a rat odorant-binding protein.
Another brick in the wall.

Journal Proteome Research 8 : 4005-4013

Borini S, Staiano M, Rocchia M, Rossi AM, Rossi M, D'Auria S. Advanced nanotechnological approaches for designing protein-based "lab-on-chips" sensors on porous silicon wafer.
Recent Pat DNA Gene Seq. (2007);1(1):1-7.

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Proteins. (2006) Jun 1;63(4):754-67.

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Resonance energy transfer studies suggest a new sensing approach for an easy detection of wheat gliadin.
J Proteome Res. (2006) Sep;5(9):2083-6.

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Biochemistry. (2006) Oct 3;45(39):11885-94

De Stefano L, Rossi M, Staiano M, Mamone G, Parracino A, Rotiroti L, Rendina I, Rossi M, D'Auria S. Glutamine-binding protein from Escherichia coli specifically binds a wheat gliadin peptide allowing the design of a new porous silicon-based optical biosensor.
J Proteome Res. (2006) May;5(5):1241-5.

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J Biochem. (2006) Feb;139(2):213-21.

D'Auria S, Staiano M, Varriale A, Scognamiglio V, Rossi M, Parracino A, Campopiano S, Cennamo N, Zeni L. The odorant-binding protein from Canis familiaris: purification, characterization and new perspectives in biohazard assessment.
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Proteins. (2006) Jan 1;62(1):193-201

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