

<b>Soggetto coordinatore</b>	Istituto di Scienze delle Produzioni Alimentari CNR
<b>Titolo del progetto</b>	Strumenti Innovativi per il Miglioramento della Sicurezza Alimentare: Prevenzione, Controllo, Correzione
<b>Acronimo</b>	S.I.Mi.S.A.
<b>Descrizione del progetto</b>	Diverse filiere alimentari e di trasformazione (carni, vino, cereali) rappresentate da aziende pugliesi porteranno avanti con il supporto del CNR e dell'università interventi per il miglioramento delle metodiche di identificazione di contaminanti microbiologici e chimici (tossine) mediante metodiche innovative (molecolari e analitiche).
<b>TA/SG</b>	TA6-SG11
<b>Riferimento Bando</b>	PON Puglia articolo 13, finanziamento del Ministero Attività Produttive.
<b>Valore del progetto</b>	€ 2.400.000,00
<b>Pubblicazioni</b>	<p>TA di riferimento: TA1, TA3, TA4. TA6  TA6 for CBRNE detection (6.1, 6.2, 6.3, 6.4)  TA6.4 Tecnologie microfluidiche accoppiate a nanostrutture molecolari per la detezone di biohazard  Capability (detection of intentional contamination of food and environment)  DNA, sonde specifiche, Real Time PCR  Blaiotta G., Fusco V., Ercolini D., Pepe O., Coppola S. Diversity of <i>Staphylococcus</i> strains based on partial kat (catalase) gene sequences and designs of a PCR RFLP assay for identification and differentiation of coagulase positive species (<i>S. aureus</i>, <i>S. delphini</i>, <i>S. hyicus</i>, <i>S. intermedius</i>, <i>S. pseudintermedius</i>) JOURNAL OF CLINICAL MICROBIOLOGY 2010, 48, 192-201</p> <p>Fusco Va, Quero G.M., Morea M., Blaiotta G., Visconti A. Rapid and reliable identification of <i>Staphylococcus aureus</i> harbouring the enterotoxin gene cluster (<i>egc</i>) and quantitative detection in raw milk by real time PCR. Journal of Food Microbiology, 2011, 144, 528 - 537</p> <p>LC-MS, chimica analitica</p> <p>Lattanzio V.M.T., Della Gatta S., Godula M., Visconti A Quantitative analysis of mycotoxins in cereal foods by Collision Cell Fragmentation - High Resolution Mass Spectrometry: performances and comparison with triple stage quadrupole detection. FOOD ADDITIVES AND CONTAMINANTS 2011, 28, 1424-1437</p>

Lattanzio V.M.T., Della Gatta S., Suman M., Visconti A Development and in-house validation of a robust and sensitive solid phase extraction - LC-MS/MS method for the quantitative determination of aflatoxins B1, B2, G1, G2, ochratoxin A, deoxynivalenol, zearalenone, T-2 and HT-2 toxins in cereal based foods. RAPID COMMUNICATIONS IN MASS SPECTROMETRY 2011, 25:1869-1880.

Lattanzio V.M.T., Solfrizzo M., De Girolamo A., Chulze S.N., Torres A.M., Visconti A. LC-MS/MS characterization of the urinary excretion profile of the mycotoxin deoxynivalenol in human and rat . JOURNAL OF CHROMATOGRAPHY B 2011, .: 879, 707- 715

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Solfrizzo M., Gambacorta L., Lattanzio V.M.T., Powers S., Visconti A. Simultaneous LC-MS/MS determination of aflatoxin M1, ochratoxin A, deoxynivalenol, de-epoxydeoxynivalenol,  $\pm$  and  $^2$ -zearalenols and fumonisin B1 in urine as a multi-biomarker method to assess exposure to mycotoxins. ANALYTICAL AND BIOANALYTICAL CHEMISTRY 2011, 401, 2831-2841

Immunoassays, Lateral flow, protein chips, Quantum dots, nanodispositivi

Lippolis V., Pascale M., Valenzano S., Pluchinotta V., Baumgartner S., Krska R., Visconti A. A rapid fluorescence polarization immunoassay for the determination of T-2 and HT-2 toxins in wheat ANALYTICAL AND BIOANALYTICAL CHEMISTRY 2011, 401: 2561- 2571

Cimaglia F., Aliverti A., Chiesa M., Poltronieri P, De Lorenzis E., Santino A., Sechi L.A. Quantum dot nanoparticle-based lateral flow assay for rapid detection of Mycobacterium species using anti- FprA antibodies. Nanotechnology Development, (2012), Vol 2, No 1:e5.

De Girolamo A., McKeague M., Miller J.D., De Rosa M.C., Visconti A. Determination of ochratoxin A in wheat after clean-up through a DNA aptamer-based solid phase extraction column. FOOD CHEMISTRY, 2011, 127, 1378-1384

Poltronieri P, Cimaglia F, Santino A, De Blasi MD, Krizkova-Kudlikova I, Liu S, Wang Y-U, Wang Y. Protein chips for detection of mite allergens using Kunitz-type protease inhibitors. Biotechnol. J., 2010, vol 5, n. 6, 582 -587.

Poltronieri P, Shaoyang Liu, Cimaglia F., Santino A., Wang Y. Characterization of Kunitz-type inhibitor B1 performance using protein chips and AFM. Sensor Actuators B, Chemical, 2012, Available online 2012 doi:10.1016/j.snb.2012.04.013

Ragona M., Mazzocchi M., Zanolli A., Alldrick A.J., Solfrizzo M., van

	<p>Egmond H.P. Testing a toolbox for impact assessment of food safety regulations: maximum levels for T-2 and HT-2 toxins in the EU. QUALITY ASSURANCE AND SAFETY OF CROPS &amp; FOODS 2011 3, 12-23</p> <p>Solfrizzo M., De Girolamo A., Gambacorta L., Visconti A., van Egmond H.P., Stroka J. Determination of fumonisins B1 and B2 in corn based foods for infants and young children by LC with Immunoaffinity column clean-up: interlaboratory validation study. JOURNAL OF AOAC INTERNATIONAL 2011, 94, 900-908</p>
<b>Curriculum</b>	