

**INTERNATIONAL MULTIDISCIPLINARY
JOINT MEETING**

Nanoscience and Condensed Matter Physics

2013

- ◆ 2do Congreso Anual de la División de Materia Condensada, SMF
- ◆ 7th Annual Meeting of DINANO, SMF
- ◆ 10th International Topical Meeting on Nanostructured Materials and Nanotechnology (NANOTECH)
- ◆ 6to Encuentro Internacional e Interdisciplinario en Nanociencia y Nanotecnología (NANOMEX'2013)

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International Multidisciplinary Joint Meeting

Nanoscience and Condensed Matter Physics

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ABSTRACTS BOOK

Interdisciplinary, inter-institutional and international group “NanoSilver”: Application of silver nanoparticles Argovit in biomedicine and veterinary

N. Bogdanchikova,^a C.A. Almonaci H.,^b A. Salinas R.,^c M. Maldonado V.,^d J. H. Almanza Reyna V.,^e I. Plascencia L.,^e A. Pena J.,^f A. Pestryakov,^{g,h} V. Burmistrov,^h L. García M.,ⁱ R. Vázquez M.,^j M. E. Arellano G.,^e R. L. Vázquez G.,^e G. Galicia S.,^k M. Galindo C.,^l C. Vera H.,^e B. Ruiz R.,^e F. Casillas F.,^e M. I. Montes P.,^e D. Rodarte V.,^e O. Martynyuk,^{a,g} J. E. Cortés R.,^m H. Uruga P.,ⁿ F. A. Rivera A.,^e E. Castro L.,^e M. Avalos B.,^a 15, D. A. Camarena P.,^d G. Aguilar U.,^p J. R. Chávez M.,^e J. G. Rodríguez V.,^e A. Huerta S.,^a G. Odegova,^k L. E. Rojas Á.,^q M. Núñez M.,^r R. A. Luna V. G.,^s A. A. Núñez S.^s

^aCentro de Nanociencias y Nanotecnología, UNAM, Ensenada, B.C.

^bHospital Regional del IMSS, San Quintín, B. C.

^cComercializadora de Sistemas de Innovación SA de CV (CSI), León, Guanajuato

^dCIATEC, León, Guanajuato

^eUniversidad Autónoma de Baja California, campus Tijuana y campus Ensenada, B.C.

^fHospital Veterinario, Ensenada, B.C.

^gUniversidad Politécnico de Tomsk, Tomsk, Rusia

^hVector-Vita Ltd, Novosibirsk, Rusia

ⁱHospital General de las Playas de Rosarito, Rosarito, B.C.

^jCentro de Investigación Científica y Educación Superior de Ensenada, Ensenada, B.C.

^kISESALUD, de B.C., jurisdicción N 4, San Quintín, B. C.

^lCAAPS, Del. Maniadero Ensenada B.C.

^mRancho Cortes, Ensenada, B.C.

ⁿConsejo de Desarrollo e Innovación Tecnológica de Baja California, Ensenada, B.C.

^oInstituto Potosino de Investigación Científica y Tecnológica, San Luis Potosí, S.L.P.

^pCentro Veterinario AGUZVET, Ensenada, B.C.

^qPromoción de la Coordinadora de Fomento al Comercio Exterior, León, Guanajuato

^rIntegración y Comercio SA de CV, León, Guanajuato

^sOficinas Centrales, ISSSTECALI, Mexicali, B.C.

E-mail: nina@cryn.unam.mx

A new network “NanoSilver” under the leadership of UNAM, dedicated to application of silver nanoparticles in biomedicine and veterinary has been created in 2012. The network is interdisciplinary, inter-institutional and international. It includes 26 groups, 115 participants from 27 government institutions and 11 private companies of Mexico, Russia, Spain, Puerto Rico and United States. The results obtained by the network are of great impact for public health, especially in the treatment of diabetic foot syndrome, which is a direct consequence of diabetes; the number one cause of death in Mexico. More than 80 amputations have been avoided in patients with legs exhibiting diabetic ulcers, which were recommended for amputation. Amputations were prevented during a clinical study for the treatment of diabetic foot with an innovative product of Argovit silver nanoparticles. Currently, clinical trials in hospitals of ISSSTECALI are beginning. Progress in the comprehensive studies of toxicity, geno-toxicity, histological and lethal dose of Argovit in Russia and Mexico shows, that this drug is non-toxic. The development of the new type of footwear with Argovit silver nanoparticles for diabetic foot is one of the main achievements of the group. The use of this innovative product of Argovit silver nanoparticles represents an alternative to the use of antibiotics; whose use and development is currently in a silent crisis. Argovit application in the prevention and treatment of epidemics and pandemics of livestock and poultry is expected to make a great contribution to Mexican economy. Three emerging spin-off companies resulted from the NanoSilver Network and are generating new high level skilled jobs. It is important to mention that number of projects that are developing technologies of high impact grows rapidly, incorporating new universities, institutions and companies.