



PROGRAM OF THE 38TH ANNUAL CONGRESS OF THE
AMERICAN ROMANIAN ACADEMY OF ARTS AND SCIENCES

July 23-27, 2014

California Institute of Technology

Pasadena, California, USA



American Romanian Academy of Arts and Sciences President

Professor Ruxandra Vidu, PhD

University of California, Davis

It is a distinct pleasure to welcome you to the 38th ARA Congress, in Pasadena, California. Intellectuals of Romanian descent from all around the world, and friends of Romania of all nationalities, will meet to discuss recent contributions to art and science.

In addition, TED styled talks will present revolutionary ideas in technology, business, healthcare, entertainment, and other fields that mark our lives and shape our future.

This document includes all the information you will need as an attendee of the 38th ARA Congress. We are glad to see you at the 38th ARA Congress and hope you have a great time!

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“Viitorul Roman” Cultural and Aid Society

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SCHEDULE

23-Jul	Wednesday Evening, Registration and Cocktail, Caltech Athenaeum		
18:30		Registration and Cocktail, Al Fresco, Athenaeum	
24-Jul	Thursday morning plenary session, Dabney Lounge		
9:00	Opening Session	Congress Organizers & Eugen Chivu	Welcome Address by Mr. Eugen Chivu - Consul General of Romania in Los Angeles
9:30	Thursday Keynote 1	Basarab Nicolescu	The Need For Transdisciplinarity in Higher Education
10:20	Morning Break		
10:40	Thursday Keynote 2	Gheorge Mateescu	Flying with Eagles: a Tale of Four Countries
11:20	Round Table	Moderated by Basarab Nicolescu	"Dialogue of Cultures"
12:40	Lunch Break	Lunch break and Tours (JPL or Caltech)	For JPL tour a JPL prior approval is needed, contact Adrian Stoica
24-Jul	Thursday afternoon, Dabney Lounge session		
14:00	TDE	Alexandru Darida, Eva Halus, Katherine Arion, Jerry McDaniel, Maria Zamfir Bleyberg	Art Exhibition
15:15	TDB	Tea Break	
15:45	TD1	Carmen Sabau, Isabel Sabau	Learning in the Digital World
16:00	TD2	Milan M'Enesti	Meeting the Bilingual Needs of Romanian Children in the U.S. Public Education System
16:15	TD3	Georgiana Galateanu	Using "Authentic" Language and Situations in a Romanian Textbook for Beginners
16:30	TD4	Diana Jansen	"Mai Români decât Români" (More Romanian than Romanians): What Determines Foreigners to Settle in Romania?
16:45		Zoia Manolescu	Non-Literary Translation And Interpretation In Romania
17:00	TD5	Bruce Nelson	Life Becomes Sapient: The Non-Linear Path to Human Uniqueness
17:15	TD6	Ioan Opris	Prefrontal Cortical Microcircuits for Cognitive Control
17:30	TD7	Gheorghe Dragan	Evidence of Human Mental Field
17:45	TD8	Livia Toanca	Small Business Performance in the Digital Era
18:00		ARA General Assembly	

24-Jul Thursday afternoon, Athenaeum Library session			
15:45	TL1	Liana Anicai, Cosmina Lazar, Maria Mihaly, Marius Enachescu	An Electrochemical Approach for Biomolecules Detection Involving Electrocatalytic Gold Nanoparticles
16:00	TL2	Mariana Prodana, Daniela Ionita, Andrei Stoian, Dionezie Bojin, Marius Enachescu	Electrochemical Deposition of Co-Sb Nanowire Arrays into Titania Nanotubes
16:15	TL3	Oxana Iaseniuc, Mihail Iovu, Matei Badea, Iulian Boerasu, Marius Enachescu	Optical and Raman Spectroscopies of (As ₄ S ₃ Se ₃) _{1-x} :Sn _x Glasses
16:30	TL4	Ioan Neamț, Ioana Ionel, Ilie Vlaicu	The Mass Balance of Sewage Sludge Digestion Process
16:45	TL5	Wächter Mihail Reinhold, Ioan Neamt and Ioana Ionel	Solid Waste Incineration of Residues – a Clean Technology
17:00	TL6	Eugen Pop, Victor Croitoru	WEB Service Based Platform for Mobile Business
17:15	Debate	Organized by Prof A. T. Balaban	On Reinstating the pre-1965 English spelling of 'Roumania', or 'Rumania'

25-Jul Friday morning plenary session, Dabney Lounge			
9:30	Friday Keynote 1	Constantin Bulucea	Eastern Europe's Semiconductor Technology and its Merging into the Globalization Trend
10:20	Break		
10:40	Friday Keynote 2	Alexandru Balaban	What is Mathematical Chemistry?
11:20	Short Break		
11:30	Friday Keynote 3	Petru Popescu	Romanians in Hollywood, and in American Fiction
12:10	Lunch Break		

25-Jul Friday afternoon, Dabney Lounge session			
13:30	Exhibition	Art Exhibition	Alexandru Darida, Eva Halus, Katherine Arion, Jerry McDaniel, Maria Zamfir Bleyberg
15:15	Tea Break		
15:45		Stela Drăgulin	Technical Features of Chopin's Piano Style
16:00		Dino Tudor	An Architect's Journey
16:15		Carmen Sabau, Isabel Sabau	Painted Glory - Romanian Monasteries
16:30		Maria Zamfir Bleyberg	On the Visual Concept
16:45		Maria Zamfir Bleyberg	Consequences of the Cold War in Art Movements
17:00		Ileana Costea	An American Painter with Romanian Inspiration - Jerry W. McDaniel
17:15		Ileana Costea	The Mioritic Space - Surprise Romanian Presence Abroad
17:30		Dinu Ioan Leonte	Shouts and Whispers ~ Strigate si Soapte

25#ul	Friday-afternoon,-Athenaeum-Library		
15:30		Diana Criclivaia	Is "Joint Audit" a New Topic?
15:40		Zinovia Toaca	Macromodel Estimates of the National Economy of the Republic of Moldova, for the 2014-2016 Interval
15:50		Victor Sibirschi	An Algorithm for Big Data Analytics
16:00		Tudor Stefan Leahu	The Motivation, Classification, Evolution and Prospect of Technologization of the Economic Informational Activities
16:10		Ilie Mamaliga	The Evolution of the Integration Process as Effect of the Treaties Signing Between the Republic of Moldova and European Union
16:20		Boris Chistruga	From Monodimensional to Multidimensional Politics
16:30		Dumitru Nicolae Todoroi	Introversive Adaptable ROBO - Intelligences
16:45		Mircea Badescu	The Auto-Gopher Deep Drill
17:00		Dan Nicolau	From Molecular Motors to Fungal Intelligence
17:15		Elena Mihail Raevschi	Trends in Mortality Of Major Contribution Cardiovascular Diseases Among Adults of the Republic of Moldova
18:30	Friday,-July-25th	Banquet,-Athenaeum-	Master-of-Ceremonies:-Florina-Kendrick-Roberts.- Guest-of-Honor:-Ambassador-James-Rosapepe.-

26#ul	Saturday,-Dabney-Lounge-		
9:30		Registration	
9:50		Opening:-Stoica,-Adumitroaie	Speaker-presentation-#Master-of-Ceremonies:-Roxanne-Istrate
	Part-1	<u>Science, Engineering and Technology</u>	
10:00		Daniel-Marcu	From Ineffable to Hundreds of Millions of Users
10:20		George-Roth	From "Fireball XL5 to Semantic Technology" or the Connection Between Steve Zodiac and Steve Jobs
10:40		Ciprian-Manolescu	Topology in Low and High Dimensions
11:00		Bogdan-Marcu	Personal Notes on Space Exploration
11:20	Coffee Break	Bogdan-Suceava	A Medieval Mystery: On Nicole Oresme's Idea of Curvitas
	Part-2	<u>Medicine, History, and Art</u>	
11:40		Adrian-Bot	Synthetic Biology Leapfrogs Mankind into the Era of "Intelligent Design"
12:00		Joe-Ferguson	The Science of Art: Natural History of Intuition and Aesthetics

12:20	Lunch (boxes)		
	Part 3	<u>Life-styles and Death-styles, Spirituality and Experimentation</u>	
13:00 PM		John Tanner	I Almost Died. Needlessly. Will You?
13:20		Liliana Cerepnalkoski	Medical Intuition and Energy Medicine: From Ancient Spiritual Traditions to Modern Scientific Breakthroughs
	Part 4	<u>Healthcare and Business</u>	
13:40		Horenzia Beciu	Global Organizations for Global Health
14:00	Panel Discussion	Moderated by Jacob Segal	Panel Discussion on Business and Entrepreneurship
		Roth, Beciu, Tanner, D. Marcu, Ferguson, Bot, Goia	
16:00		End of Congress Sessions	
		More social programs on Saturday evening and Sunday	

Thursday Morning Keynotes DABNEY LOUNGE



The Need For Transdisciplinarity In Higher Education

Professor Basarab Nicolescu, Emeritus Prof of Physics, CNRS, France Honorary Member of the Romanian Academy, Homepage: <http://basarab-nicolescu.fr/>

Abstract: A viable education can only be an integral education of the human being. Transdisciplinary education is founded on the inexhaustible richness of the scientific spirit, which is based on questioning, and of the refusal of all a priori answers and all certitude contradictory to the facts. At the same time, it revalues the role of the deeply rooted intuition, of the imaginary, of sensitivity, and of the body in the transmission of knowledge. It is only in this way that the society of the twenty-first century can reconcile efficiency and respect for the potentiality of

every human being. The transdisciplinary approach will be an indispensable complement to the disciplinary approach, because it will mean the emergence of continually connected beings, who are able to adapt themselves to the changing exigencies of professional life, and who are endowed with a permanent flexibility which is always oriented towards the actualization of their interior potentialities. If the University intends to be a valid actor in sustainable development it has first to recognize the emergence of a new type of knowledge: transdisciplinary knowledge. The new production of knowledge implies a necessary multidimensional opening of the process of learning: towards civil society; towards cyber-space-time; towards the aim of universality; towards a redefinition of the values governing its own existence.



Flying With Eagles: A Tale Of Four Countries

Professor Gheorghe Mateescu, Emeritus Prof of Chemistry, Case Western University, Fellow, International Society for Magnetic Resonance in Medicine Honorary Member of the Romanian Academy

Abstract: In this keynote speech I will first express my gratitude for the honor that has been bestowed upon me by the members of the American Romanian Academy. I will then briefly describe the most important moments of the first part (39 years) of my life in Romania and of the second part (47 years) that I lived in the United States of America. I will explain why, all this time, I have been a “very lucky man.” I will explain how I succeeded to make

my happiness overcome my sorrows. In order to leave with you something more useful than sharing my emotions with you, I will also introduce you to the essence of MRI (Magnetic Resonance Imaging), my present “cup of tea.” I will try to do this in a way that will be accessible to any intellectual, from any walk of life. Some of you will be surprised to find out that MRI is overwhelmingly based on the chemical and magnetic properties of water in our body. I will also try to put this in the perspective of transdisciplinarity, that began fascinating me the moment I learnt that Basarab Nicolescu, the other keynote speaker of this meeting, is one of the champions of this foretelling idea.

Friday Morning Keynotes DABNEY LOUNGE



Eastern Europe's Semiconductor Technology And Its Merging Into The Globalization Trend

Dr. Constantin Bulucea, IEEE Fellow, USA Honorary Member of the Romanian Academy

Abstract: Emerging from isolation in forced economic independence, the semiconductor industries in the East-European block are seen as having recently gone through a decade of government-backed growth and economic collapse (1981-1990), followed by one of rough transition to the market economy (1991-2000), and by one of stabilization to a new equilibrium within the globalization trend (2001 to 2010). Concurrently, the Western industries had their growths, enthusiasms, delusions and corrections. The dynamics of these evolutions will be illustrated with landmark achievements associated with advancing on corresponding "Moore's Law" curves. At the world level, relatively longer times are observed from invention to application, as the complexity of the new processes and systems increases. It has taken only 5 for the bipolar IC invention to find its application in space guidance computers versus 13 years for the Complementary Metal-Oxide-Semiconductor (CMOS) Integrated Circuit (IC) invention to be used in primitive microprocessors (20 for more practical ones). This observation is important when projecting the application of nanotechnologies to Very-Large-Scale Integration (VLSI) electronics. The discussion will continue with a discussion of what is expected to happen in the East in the following years. Learning from the observed unpredictability of the semiconductor industry, the speaker will make cautious predictions, still insisting on the very-high-technology commodity characteristic of digital VLSI electronics. Correspondingly, VLSI manufacturing will be concentrated in very few global foundries having virtually unaffordable price tags in the range of \$10B. However, the design, modeling/simulation, and testing of such products will remain realistic everywhere. Among other areas of realistic opportunities, the speaker will suggest analog and mixed-signal ICs, power switches and photovoltaics, TCAD, and nanotechnology, each commented separately. For the latter, reduction to practice appears to be the most critical expectation. The globalization-related unemployment will be briefly commented based on statistical distribution of skills in population. The speaker will footnote his presentation with a slide on the contributions to world's science and technology of those who chose to leave their countries and join the Western community.



What Is Mathematical Chemistry?

Alexandru T. Balaban Emeritus Prof of Chemistry Texas A&M, Member of the Romanian Academy

Examples from the author's personal experience illustrate how mathematical chemistry applies graph theory and discrete mathematics to chemical problems, without involving intermediate physics. In molecular graphs, vertices represent atoms and whose edges represent covalent bonds. In reaction graphs vertices represent molecules or ions and edges symbolize elementary reaction steps.



Romanians In Hollywood, And In American Fiction

Petru Popescu, Writer, director movie producer, and author of best-selling novels

Petru Popescu ran away from Communist Romania when he was that country's youngest and most talked-about dissident novelist. A direct conflict with dictator Ceausescu made him ask for help from illustrious American authors, including John Cheever, Saul Bellow, and John Ashbery, who pressured Ceausescu to give Petru a passport -- still, Petru's escape was dramatic and dangerous. He came to California in 1977, and after studying at the American Film Institute began to write screenplays in English; his first script, *The Last Wave*, co-written with director Peter Weir, became a cult classic. His political thriller movie *Nobody's Children*, about the plight of Romanian orphans, received accolades from critics and audiences alike.

Soon, Petru started writing fiction again, in English. *Amazon Beaming* (1991) and *Almost Adam* (1996) became NY Times bestsellers, while the nonfiction books *The Return* (1997) and *The Oasis* (2001) were acclaimed by authors like William Styron, Elie Wiesel and John Ashbery (more detailed data and year dates to be found at www.Petrupopescu.com.)

Petru's latest novel, *GIRL MARY*, out this September from Simon&Schuster, is a historic novel based on the life of Mary of Nazareth. As Deepak Chopra said in an endorsement:

Girl Mary brings the people and settings of Biblical antiquity to life with compassion, vivid storytelling, and an unerring eye for the Rightness of the world's greatest story. It will speak to anyone who cherishes the essential humanity of our foundational spiritual traditions. - Deepak Chopra, author of *Perfect Health*

Petru takes great interest in male-female relationships. He explains that he is trying to understand history through iconic characters rediscovered and reinterpreted, and that his recurring themes are love and the female character. Petru lives in California and is married to designer Iris Friedman. They have two children, Adam and Chloe.

THURSDAY AFTERNOON SPEAKERS DABNEY LOUNGE

Carmen Sabau, Isabel Sabau – **Learning In The Digital World**

Education in the digital modern world is at the crossroads between pedagogy and innovation, between increasing use of technology and the need for self-reflection. This paper proposes to analyze some of the current trends in the application of technologies in the online educational world and consider both new pedagogies and areas of concern in their application.

Milan M'Enesti – **Meeting The Bilingual Needs Of Romanian Children In The U.S. Public Education System**

Currently, public education in the United States is undergoing major changes in hopes for reaching significance between training and graduation. This literature synthesis focuses on the Romanian student population and its integration into the American school culture via bilingual education as the instructional tool, and the public charter system as the vehicle. The synthesis will present work collected from journal articles, book chapters, interviews, reports, and reference handbooks.

Georgiana Galateanu – **Using “Authentic” Language And Situations In A Romanian Textbook For Beginners**

The presentation discusses the periodical changes in the concept of “authenticity” in language teaching under the impact of evolving (socio-)linguistic and learning theories and describes ways of adapting “authenticity” to the learners’ needs in an elementary Romanian language textbook.

Diana Jansen – **“Mai Români Decât Români” (More Romanian Than Romania): What Determines Foreigners To Settle In Romania?**

The presentation analyzes the answers that twenty-two foreigners gave to the question “Why do you love Romania?” in the book “Mai români decât români. De ce se îndrăgostesc străinii de România,” coordinated by Sandra Pralong and published by Polirom (Iași, 2013). The following topics are discussed: what the new citizens love about Romania, what aspects they are critical of, what they have accomplished in their new country, and what they don't like about their countries of origin.

Zoia Manolescu – **Non-Literary Translation And Interpretation In Romania**

Today, translation without technology is unconceivable. Word processors, terminology databases and translation memories are tools that are being used by many translators. They have realized that the output of their work can be accelerated by all these tools and that their survival in the profession depends on the use of such technical resources. However, the translator training programs are still very conservative and timid in introducing technical resources for translators in their curriculum, continuing to teach mainly literary translation. Non-literary translation programs have started to be developed in Europe and are almost inexistent in USA. This paper will present the Translation and Interpretation program that started in a technical university in Romania 10 years ago, being the first-of-a-kind program for non-literary translation. At the same time, its development and its future will also be discussed, considering the huge impact of technology both on these professions and on the teachers involved in the education process.

Ioan Opris – **Prefrontal Cortical Microcircuits For Cognitive Control**

The prefrontal cortex of the primate brain has a modular architecture based on the aggregation of neurons in minicolumnar arrangements having afferent and efferent connections distributed across many brain regions to represent, select and/or maintain behavioral goals and executive commands. Prefrontal cortical microcircuits are assumed to play a key role in the integration of signals across cortical layers and the selection of executive variables. Recent research suggests that cognitive abilities emerge from corticocortical interactions between interlaminar prefrontal cortical microcircuits, while their disruption is involved in a broad spectrum of neurologic and psychiatric disorders like autism, and drug addiction. Based on recent technological progress it has been demonstrated that microstimulation of infragranular cortical layers with patterns of microcurrents derived from supragranular layers led to an increase in cognitive performance. This suggests that interlaminar microcircuits are playing a causal role improving cognitive performance. The objective of this paper is to shed light on the new interest in cortical modularity coming from the impressive progress in understanding anatomical, physiological and pathological facets of cortical microcircuits and the promise of neural prosthetics for patients with neurological and psychiatric disorders.

Gheorghe Dragan – **Evidence Of Human Mental Field**

The present contribution presents some results evidencing the effect of Human Mental Field (HMF) on the properties of some materials and evaluation of the Individual Human Mental State (IHMS) with the help of an original test. At the beginning of July 2005 I had to live several years in a Sydney's suburb (Australia) in view to help my daughter's family. The suburb and surrounding area at least 10 km around was practically empty of inhabitants and auto traffic in the hour interval of 9 am and 3 pm during working days. Due my prior experience on material testing, especially properties of water/aqueous solutions and the fact that tap water in Sydney area had a strange taste for me, I intended to resume some structural analyses on it. I have built up a very simple, but very efficient isothermal calorimeter evidencing the freezing kinetics, so I was greatly surprised to obtain a huge dispersion of induction time of freezing exothermal process even after careful examination of experimental source of errors. By repeating many times the experiments, I have observed systematically that: (i) absolute and dispersion values reached low values when I was as alone and abruptly increased when members of my family were getting home and/or the flow of commuters came from city to their homes; (ii) HMF effect of commuter flow in the morning towards city was much lower than the back one after work, although the first one was considerably greater on a shorter time and space; (iii) It was also evidenced the effect of distance, intensity and coherency of HMF and its orientation relative to Earth's magnetic field; (iv) HMF strongly interacts with highly oriented materials (for instance cold rolled/drawn crystalline polymers, flowing water and aqueous solutions); (v) Effect of HMF can be predicted by evaluation of IHMS with the help of HuPoTest – mental test established during over 40 years of experience. The experiments were extended with other analytical techniques and materials. Most of these results were published and posted on internet at <http://www.gdfdatabanks.ro/?p=105>

The digital era has a great impact on many aspects of the global economy, transforming industries and generating unprecedented opportunities for small and large companies alike. As drivers of economic growth, small businesses and their communities would benefit from better and faster adapting to the realities of the digital age. Our research seeks to identify opportunities for improving small business performance by utilizing digital advancements. As we watched industries like publishing and entertainment being completely ripped apart by the emergence of digital technologies, we had to recognize the powerful effect of the changes brought about by the digital era. Since then, many digital and technology advancements have emerged and many different views have coalesced around the information society, the digital economy, the network economy and other labels of the new, technology-based world. Our goal is identify opportunities to improve small business performance and to propose easy-to-implement solutions that would allow small businesses to better compete in their markets. As the global economic recovery continues to take root, it's critical that small businesses are at the forefront of the economy fueling innovation and job creation.

Thursday Afternoon Speakers ATHENAEUM LIBRARY

Liana Anicai, Cosmina Lazar, Maria Mihaly, Marius Enachescu – **An Electrochemical Approach For Biomolecules Detection Involving Electrocatalytic Gold Nanoparticles**

In the last years the gold nanoparticles (AuNPs) have been used in various applications, due to their ability to provide a stable immobilization of biomolecules retaining their bioactivity, which is a major advantage for the preparation of biosensors. Moreover, they are characterized by a good biological compatibility and excellent conductivity. Various synthesis procedures have been proposed in the recent years to better control their size, morphology and surface chemistry as the main parameters that may further influence the detection process.

Mariana Prodana, Daniela Ionita, Andrei Stoian, Dionezie Bojin, Marius Enachescu – **Electrochemical Deposition Of Co-Sb Nanowire Arrays Into Titania Nanotubes**

Nanostructured materials show novel physical and chemical properties, different from those in bulk, Co-Sb nanowires being one of the most promising materials with thermoelectric and remarkable electrical properties. The properties of these materials are largely affected by doping. Arrays of Co-Sb nanowires, with and without doping with iron, have been prepared by electrodeposition into self-aligned titania nanotubes (TiO₂-NT). Titania nanotubes were obtained by anodization method. The nanowires deposited into titania nanotubes arrays have been investigated by SEM, EDS, FTIR and contact angle methods. Impedance spectroscopy studies (EIS) were performed and the micro-hardness (Vickers - μ HV) of samples was determined.

Wächter Mihail Reinhold, Ioan Neamt and Ioana Ionel – **Solid Waste Incineration Of Residues – A Clean Technology**

Waste is ecologically a major risk for the environment, but still can be reused as energy source. The co-combustion of municipal waste or even the independent use, according to its lower calorific value represents a challenge that is state or art already. Thus clean energy is resulting, as the emitted CO₂ can be considered neutral. Advantages and disadvantages are presented. But still the major problem of using the ash and reducing the local pollution, in air or soil, remains a risk. The present paper brings some solutions concerning the use of the dense slurry technology as well for the case of waste incinerators. Waste management gives thus a solution for such residues that are normally ending in land filling disposal. One of the major problems arise from land filling is the contamination of the environment with harmful substances that can be transmitted by leaching.

Eugen Pop, Victor Croitoru – **Web Service Based Platform For Mobile Business**

Mobile business services are an attractive solution used by various economic and government agents in order to offer their products or services to a great number of potential clients. The efficiency of using and providing of these services increases significantly, due to the mobile and wireless channels used for data transmission, so the user can access these facilities from anywhere and anytime. In this paper a Web based client server platform for a stock market exchange service is presented. The electronic service content provider is the Romanian Bucharest Stock Exchange. The data is delivered to the client using a web service and socket-to-socket communications, which significantly reduces the data traffic, comparing with the WEB browsing. The client software applications are suitable for PDAs and Smartphones, with Windows Mobile and Symbian OS.

Oxana Iaseniuc, Mihail Iovu, Matei Badea, Iulian Boerasu, Marius Enachescu – **Optical And Raman Spectroscopies Of $(As_4S_3Se_3)_{1-x}Sn_x$ Glasses**

Chalcogenide glasses are important materials for a wide range of technical applications, such as infrared optical elements, acousto-optic and all-optical switching devices, holographic recording media, diffractive optics, photonic crystals, etc. Optical investigation such as infrared reflectance and Raman spectroscopy are efficient tools for obtaining information on the local structure of the disordered material, especially when the composition is varied. In this paper we present the Raman spectra of bulk and amorphous thin films as-deposited and after light irradiation of $(As_4S_3Se_3)_{1-x}Sn_x$ ($0 \leq x \leq 10$ at. % Sn) chalcogenide glasses. The Raman spectra of $(As_4S_3Se_3)_{1-x}Sn_x$ glasses consist of two broad bands located at around $\nu = 236 \text{ cm}^{-1}$ and $\nu = 345 \text{ cm}^{-1}$, which corresponds to the main vibration modes of vitreous As_2Se_3 and As_2S_3 . Tin impurities didn't change the shape of Raman spectra, but shift the both bands to low frequency region. The maximum situated at around $\nu = 236 \text{ cm}^{-1}$ and $\nu = 345 \text{ cm}^{-1}$ are characteristic for all investigated glass compositions and are attributed to the symmetric stretching vibration modes of $AsSe_3/2$ and $AsS_3/2$ pyramids, respectively. The light exposure of amorphous $(As_4S_3Se_3)_{1-x}Sn_x$ thin films shift the main maximums of Raman spectra toward the lower energies.

Ioan Neamț, Ioana Ionel, Ilie Vlaicu – **The Mass Balance Of Sewage Sludge Digestion Process**

In Romania, in the coming years, the amount of wastewater collected by sewage systems will be constantly growing. NTPA-011 in Government Decision 188/28.02.2002, updated until 19.10.2011, provides that until December 31st. 2018 all agglomerations areas between 2000 and 10000 population equivalent to be provided with sewerage networks. Many of these human agglomerations are metropolitan areas located near the county capitals. Wastewater collected in these areas are (will be) transported by gravity or by pumping them in municipal wastewater treatment plants already built. Therefore the amount of treated wastewater will increase, causing at the same time, the increase of the processed sludge quantities, and therefore the increase of the specific energy consumption in wastewater and sludge treatment processes. To compensate this increase of energy consumption, wastewater treatment plants operators must find the best solutions for energy recovery from sewage sludge through anaerobic digestion process with the biogas production and thermal treating with heat and electricity recovery. The purpose of this article is to describe the specific features of an anaerobic digestion process for sludge derived from municipal wastewater. The article presents a calculation summary of mass balance on sludge treatment line.

Friday Afternoon Speakers DABNEY LOUNGE

Stela Drăgulin – **Technical Features Of Chopin's Piano Style**

The performing art ennobles, through all its elements, music in its completeness, lifting it to the level of artistic events. However, musical performance is not always synonym with the performing art, although it often correlates on a wide range of technical significances. Chopin's music acquired new dimensions after he left Poland. Biographical factors must have put a mark on his stylistic maturation – a radical change from the admiration nurtured by Warsaw, to Vienna's indifference, and a growing disappointment towards the career intended by the composer-pianist. Regardless of the causes that driven the change, the development were reflected not only in Chopin's musical style, but also in his demeanor of approaching a composition. He invested more in his activity as a composer than in his activity as a pianist. Generally, it is not difficult to conclude on the changes in the nature of his style. An essential starting point is to recognize that Chopin's musical style crystallized less according to the classical Viennese model than to the post-classical repertoire. This style was occasionally described as the brilliant style, which Chopin embraced and remodeled in his works. It is well known that the way in which Chopin's music is performed undergoes constant changes with each new generation, with each new pianist. The change occurs through the selections among the richness of his music and those specific elements of expression that suit them best and may be used to emphasize in their performances. However, the choice should be attributed to the Chopin's genius and his unique and distinct personality, which reflect the most characteristic features of his culture and customs. Comments on the music are exceptionally instructive because of Chopin's performing traditions. Cantabile, rubato, tempo giusto, the play with sound timbres, the flexibility in observing metric benchmarks that contribute to the unification of all elements specific to a musical piece and comply with the need of using an adequate prosody of musical phrase, the pedaling according to Chopin's annotations, but also to the varying acoustic conditions in concert-halls – all these are the basic elements, conferring clearness and accuracy upon the conveyance of the composer's thought. The sounds, the melody, the structural purity, the rhythmical elasticity, the pelicular rubato – all are essential elements to Chopin's creativity and they establish the tradition as objectively as possible on the basis of interpretational phenomenology. The complex structure of the performing art, the multitude of its elements and the possibility of its multiple configurations yields an infinite number of interpretative versions of a composition. While the musical score, the composer's style and the characteristics and qualities of his work remain unchanged in the historical sense, the way in which they are performed does change in time and the change depends on the cultural background of the interpreter, sensitivity, imagination, knowledge and artistic intelligence.

Dino Tudor – **An Architect's Journey**

Carmen Sabau, Isabel Sabau – **Painted Glory: Romanian Monasteries**

The painted monasteries of Romania provide a unique and irreplaceable window into the 14th through the 16th centuries. The frescoes present a vision of the existential experience of their creators, who memorialized the sacredness of their spiritual world and the concrete reality of their dignity and fierce struggles for independence.

Maria Zamfir Bleyberg – **On The Visual Concept**

According to the artist David Leffel, the visual concept is a statement of the entire painting in its simplest terms. It exists in the painter's mind and will be the framework of the painting. Onto this framework goes the assembled subject matter, which consists of the composition, values and colors, all working to maintain the shape of the original idea of the painting. It is an illusion to believe reality can be copied per se. It depends of what and how the artist chooses to see. Good painting is consistency of thought. Bad painting is a lot of waste and excess, due to a lack of concept. Concepts may be ideas about movement of light, light and shadow, values, color, shape, and edges.

Maria Zamfir Bleyberg – **Consequences Of The Cold War In Art Movements**

During the height of the Cold War in the 1950's, the CIA secretly promoted Abstract Expressionism as a means of discrediting the socialist realism of the Soviet Union. The CIA noted a group of little known upstart American artists and thought them perfect to help execute the strategy. The abstract expressionists were attacking convention with their "action painting," an avant-garde aesthetic that pronounced the act of painting to be more important than the results. They favored a headlong rush into the mystical where agitated fields of color were the only message. The unintended blowback included the undermining of figurative realism. Nonrepresentational over realistic artworks are favored to this day. This work presents works of Jackson Pollock, Sam Francis, Willem de Kooning, and Mark Rothko, as struggle against the Soviet Union Social-Realism.

Ileana Costea – **An American Painter With Romanian Inspiration - Jerry W. McDaniel**

Sometimes elements of Romanian culture are made known to the world by persons who are not of Romanian origin. One of these cases is the Japanese photographer Miya Kosei who fell in love with the Maramures, and was first one to introduce this region to the western world in an exhibition in Paris. Heterogeneous artist Jerry W. McDaniel, 100% non-Romanian, has in his art Romanian elements: In the 1970's while McDaniel worked as a graphic designer for companies such as Pan Am Airlines, Intercontinental Hotels, and Malboro/Philip Morris International, he created a series of sports posters for championships in South America sponsored by PMI, one of which has the name of Ilie Nasatase as a participant, way before the Romanian was a known tennis player. A whole series of acrylic paintings depicting poems of Blaga made to serve as stage at the poetry recitals of the known Bucharest actress and singer Lidia Lazu in California, 2008. As an Invited Guest of Honor at Salon ARTIS 2010 exhibition in Bucharest, Romania, whose theme was architecture and art, Mr. McDaniel presented two European nightscapes, Amsterdam at 4 am and The Eiffel Tower Everywhere and designed the cover of the catalog and the image for the poster of the event. A series of six paintings in acrylic on canvas inspired by the Blaga's poem "I want to Dance" presented at the Athenaeum Romanian Days, Essen and Dusseldorf, Germany, 2011. Black and white drawings with suggestive repetitive elements inspired by Tuculescu, with which McDaniel has high affinity also through the power of expression of strong colors.

Ileana Costea – **The Mioritic Space - Surprise Romanian Presence Abroad**

This work presents elements from the 40 articles that I have published between 1980 to present world-wide on the theme “Surprise Romanian Presence abroad”. We carry with us the “Mioritic Space” in any country we settle, and we are present with many forms of culture of quality (music, dance, painting, sculpture, theater, film, architecture, sport and science). The article mentions the Romanians in the "spotlight" (“classical known personalities” such as Brancusi, Eliade, Enescu, "sports celebrities” such as Ilie Nastase, Tiriac, Nadia Comaneci, and the Dracula myth), and draws special attention to those Romanian elements which are less known although of importance to society from the past to the present (the large computer scientist group employed by Microsoft in Redmond, Bubi Gerogescu – modernist mid-century architect in California, stylist Samaranda Schaechtele in Dusseldorf, fashion designer Aurora Cercel in the US, Hollywood eyebrow specialist Anastasia Soare). We can say that the Romanian culture is the "best kept secret world-wide”. This article expresses my passion and self-imposed mission to make these discoveries and create and awareness of Romanians and Romanian Culture out of Romania.

Dinu Ioan Leonte – **Shouts And Whispers (Strigate Si Soapte)**

After the milestone of the ARA 32nd Congress in Boston, USA, many of these poems have been written when the main topic of eschatology was initiated, being faithfully illustrated later within my paper published by the ARA 33rd Congress in Sibiu and the ARA 34th Congress in Bucharest, Romania. Preserving the initial format of that paper, new poems from my book "Amorfe si Cristaline" were added, as reflected at the ARA 35th in Timisoara, where for the first time here the topic of TRANSDISCIPLINARITY has been approached. This last subject was enthusiastically adopted by the attendees of the ARA 36th Congress in Bari, Italy, within a Round-Table. This last event has been a prelude to the privilege and the honor of having among us one of the founders of transdisciplinarity, Acad. Prof. Dr. Basarab Nicolescu. In addition, here is added again the topic of LIMERICKS, where I tried to sketch in Romanian some more unpaved routes to nowhere. But as always, beyond any shadow of doubt, most of these poems express my gratitude to God, to whom alone should be given all praise and glory for our accomplishments in this life.

Friday Afternoon Speakers ATHENAEUM LIBRARY

Diana Criclivaia – **Is “Joint Audit” A New Topic?**

In spite of the fact that the implementation for joint audits is still at the incipient stage, it is clear that the Tax Authorities over the world want to increase direct contacts between tax auditors and to enhance the efficiency into their relationships with taxpayers and tax practitioners. Jointly fighting against international tax evasion, aggressive tax planning, and corruption will allow countries to squeeze more revenue from their tax bases with fewer resources. This paper will explore some of the opportunities of implementation of joint audits in order to improve effectiveness of revenue collection and describe some countries' experiences in which the tools of international tax audits have been used to overcome the special challenges of international tax administration.

Zinovia Toaca – **Estimări De Macromodel A Economiei Naționale A Republicii Moldova Pentru Perioada 2014-2016**

Estimate of the macroeconomic indicators for the period 2014-2016 are carried out under an econometric model, which has the exogenous variables internal and external indicators. This allow to develop a forecast, which takes into account the economic influence of the main partners of the Republic of Moldova and decisions leading to the evolution of such internal indicators as a monetary aggregate M2, exchange rate, interest rate credit.

Tudor Stefan Leahu – **The Motivation, Classification, Evolution And Prospect Of Technologization Of The Economic Informational Activities**

The main factors, which determined the subject to be particularly interested in the processes of technologization in every area of his business, either material, spiritual or informational, are identified and characterized. The classification and analysis of the functional and informatics technologies in the sphere of economic information are performed. Also, the evolution and final perspective of these technologies are disclosed.

Dumitru Nicolae Todoroi – **Introversive Adaptable Robo-Intelligences**

This project represents a brief research of temperament types and how can they be used in ROBO-intelligences creation by the help of Adaptable Tools for its construction. ROBO-intelligence is an imitation of human with a possibility to poses information or abilities of people. In Consciousness Society, which will be created at 2019 – 2035 years, will be achieved equality of possibilities of ROBO-intelligences with the possibilities of Natural structured intelligences. The reason why we should improve robots by adding to them emotions, temperaments, feelings, and other abilities is to enlarge their possibility to help people not only at factories but even at office of some random companies like insurance or tourism. They can be welcoming, can scan and determine human temperament and synchronize it with their own or proceed with collected information to the head of the company in order to give a better solution in a certain activity or interaction with consumer. This can be a new beginning in artificial intelligence domain.

Mircea Badescu – **The Auto-Gopher Deep Drill**

Subsurface penetration by coring, drilling or abrading is of great importance for a large number of space and earth applications. An Ultrasonic/Sonic Drill/Corer (USDC) has been in development at JPL's NDEAA lab as an adaptable tool for many of these applications. The USDC uses a novel drive mechanism to transform the high frequency ultrasonic or sonic vibrations of the tip of a horn into a lower frequency sonic hammering of a drill bit through an intermediate free-flying mass. The USDC device idea has been implemented at various scales from handheld drills to large diameter coring devices. A series of computer programs that model the function and performance of the USDC device were developed and were later integrated into an automated modeling package. The USDC has also evolved from a purely hammering drill to a rotary hammer drill as the design requirements increased from small diameter shallow drilling to large diameter deep coring. A synthesis of the Auto-Gopher development is presented in this paper.

Dan Nicolau – **From Molecular Motors To Fungal Intelligence**

Protein molecular motors are natural nano-machines that convert the chemical energy obtained from the hydrolysis of adenosine triphosphate (ATP) into mechanical work, which is central to cellular motion, muscle contraction, cell division and a multitude of other critical biological processes. The exceptional efficiency of protein molecular motors, together with their small Nan scale, prompted an increasing number of studies focused on their integration in hybrid micro- and nanodevices. However, and despite tremendous progress in the engineering of molecular motors, much needs to be learnt from Nature, in particular regarding the cooperative behavior of molecular motors in vivo, before coming even close to efficiency in in vitro devices.

Filamentous fungi are very successful in colonizing micro-confined maze-like networks (e.g., soil, wood, leaf litter, plant and animal tissues), suggesting that they may be efficient solving agents of geometrical problems. The growth behavior and optimality of space-searching algorithms of several fungal species has been tested in microfluidic mazes and networks. First, it was found that the growth behavior of all species was strongly modulated by the geometry of micro-confinement. Second, the fungi used a complex growth and space-searching strategy comprising two algorithmic subsets: (i) long-range directional memory of individual hyphae and (ii) inducement of branching by physical obstruction. Third, stochastic simulations using experimentally measured parameters showed that this strategy maximizes both survival and biomass homogeneity in micro-confined networks, producing optimal results only when both algorithms are synergistically used. Further studies suggest that directional memory is 'stored' in microtubule skeleton; whereas collision induced branching is controlled by turgor pressure. These studies open the possibility of designing antifungal treatments based on nano-mechanical rather than chemical mechanisms; and of reverse engineering of natural algorithms for non-trivial mathematical problems.

Elena Mihail Raevschi – **Trends In Mortality Of Major Contribution Cardiovascular Diseases Among Adults Of The Republic Of Moldova**

Cardiovascular diseases are widely regarded as the most important and stringent problems of medico-social aspect of the XXI century. Cardiovascular diseases are widely recognized as the leading killer of the XXI century, exceeding even all form of cancer taken together. Cardiovascular diseases represent also the major cause disabilities and decrease of the life quality, thus determining a severe economic and psychological impact. As well as in economically well-developed countries in the Republic of Moldova cardiovascular maladies were given a paramount importance due to the increase of their spread and negative impact on the working capacity of the population. Major contribution cardiovascular diseases (hypertensive disease, ischemic heart disease and cerebrovascular disease) remain the most frequent health conditions that provoke deaths in the Republic of Moldova. Dynamic assessment of cardiovascular health (including the prevalence of risk factors) will contribute to the prevention of cardiovascular diseases in the Republic of Moldova.

SATURDAY TEDX STYLED TALKS DABNEY LOUNGE

“Beyond the Horizon” – a TEDx-Styled Day

Master of Ceremonies: Roxanne Istrate

Session 1: Science, Engineering, and Technology

From Ineffable To Hundreds Of Millions Of Users

Daniel Marcu

Less than two decades ago, a large fraction of professionals, from teachers to literary critics to translators, could argue that what they do is ineffable – no machine would ever be able to distinguish a good essay from a bad one and no machine would be able to produce translations of high emotional impact and/or commercial value. However, recent scientific results and commercial products are fundamentally challenging this perception. In this talk, I will review some of the advancements and trends in an area that straddles the boundary between humans and machines. Despite its initial success stories, making the ineffable tangible is only at its beginning. Daniel Marcu is recognized as a leading authority in natural language processing and successful entrepreneur. He has co-authored an MIT Press book, more than 100 peer-reviewed articles, and 24 USPTO patents. He has a proven track record in securing, managing, and delivering on commitments specific to large-scale US- and EU-sponsored R&D grants; transitioning research concepts into commercial software used by more than 100M+ people worldwide (ETS, Language Weaver, and SDL); providing substantial returns to investors (Language Weaver); and creating, managing, and mentoring large R&D organizations (ISI/USC, Language Weaver and SDL).



From "Fireball XL5 To Semantic Technology" Or The Connection Between Steve Zodiac And Steve Jobs

George Roth, President, Recognos, San Raphael, CA; Member, VC Roundtable networking group in Palo Alto

The presentation will focus on the way how my carrier started in Cluj through a coincidence related to the creation of the first Computer Science High School in 1971, and followed the evolution of the Computer Science from the mainframe era to the smart phones. Growing up in a communist country, it took a lot of experiments, coincidences and struggles that allowed me to succeed on developing a career in IT and in the last 20 years becoming an entrepreneur in Silicon Valley. I will present my theory related to the current success of the Romanian IT and entrepreneurial movement. George Roth was born in Cluj, Romania. He graduated with an MS in Mathematics and Computer Science from the "Babes Bolyai" University in Cluj. His career started at the Cluj Territorial Center for Computation (CTCE) where he worked until 1991. In 1991 George emigrated to the U.S. During his early years in the U.S., he worked as a Software Architect. In 1999, he co-founded Recognos Inc. and in 2000 Recognos Romania. Recognos develops a semantic platform used to extract data from non-formatted documents. George is one of the founding members of the Romanian American Business Network Silicon Valley, and he is the Honorary Consul of Romania in San Francisco.





Topology In Low And High Dimensions

Ciprian Manolescu, PhD Professor of Mathematics University of California Los Angeles, CA

What is the shape of the universe? While physicists debate various answers, mathematicians can help by making a list of all possible choices. In particular, topologists study geometric shapes with regard to only those properties that are unchanged under stretching and bending. I will discuss what is known about the topological classification of manifolds (the simplest kind of shapes). The classification is easy in dimensions 0, 1 and 2, and it gets interesting in dimension

3. Starting in dimension 4 there are examples of shapes with unusual properties: some that cannot be smoothed or triangulated, and some that have several smooth structures. Ciprian Manolescu grew up in Pitesti, Romania. As a high school student he got three perfect scores in the International Mathematical Olympiad. He then studied at Harvard University, where he received his BA in 2001 and his PhD in 2004. He joined the mathematics department at UCLA in 2008, and in 2012 he was promoted to full professor. In 2012 he received the Prize of the European Mathematical Society, awarded to the 10 best European mathematicians under age 35. Ciprian does research in the fields of geometry and topology. One of his recent results is a disproof of the long-standing triangulation conjecture in high dimensions.



Personal Notes On Space Exploration

Bogdan Marcu, PhD Senior Engineering Scientist SpaceX, Hawthorne, CA

The reference achievement in human exploration remains to this day the Apollo Program. Perhaps several decades ahead of the world average technological capabilities of its time, man's first step on the Moon has established an expectation that remains yet to be replicated. However, the vast bulk of man's knowledge of the universe emerged from unmanned probes sent in orbit and throughout the solar system, and yet, in spite of this fact, the fascination remains associated with the human presence in space. It is of interest to examine the funding available for

human exploration, today and in historical perspective, the technologies available, and eventual paradigm changes needed. In addition, business models associated with space exploration - manned or unmanned, are examined, in the context of the controversial concept defined by the syntagm of commercial space. Bogdan Marcu is a senior engineering scientist with the Space Exploration Corporation. A graduate of the Polytechnic Institute of Bucharest (MSAE 1984) he continued his studies with a Ph.D program at the University of Southern California in Los Angeles (Ph.D.AE 1996) after seven years of industrial career in his native country of Romania. After a two year of postdoctoral research on vehicle aerodynamics, Bogdan joined the Rocketdyne division of the Boeing company in 1998. During his 13 years tenure at Rocketdyne, Bogdan generated analyses and designs for the Space Shuttle Main Engine, the MB-60, MXX and J-2X engine programs, while his company changed hands from Boeing to Pratt and Whitney. In 2011 Bogdan left Rocketdyne for the position of lead turbine designer at Space X. The new Falcon 9 1.1 rocket is powered by the new M1D/MVacD engines equipped with the turbines designed by Bogdan.

Session 2: Medicine, History, and Art

Synthetic Biology Leapfrogs Mankind Into The Era Of "Intelligent Design"

Adrian Bot, MD, PhD Vice President, Translational Medicine Kite Pharma Inc.
Santa Monica, CA



Throughout phylogenesis, species evolved and perfected through genetic evolution. This process involves a stochastic interplay between natural genetic diversification and selection of the fittest. The organisms however, are not "perfect machines" as they are prone to failure under environmental duress throughout one's lifespan, facilitated by genetic alterations accumulating with the natural aging process. Progress in medicine and especially the advent of targeted therapies showcase the concept of correcting defects at the molecular level to restore the normal functioning of the body. This strategy of defining, repairing or restoring the normal function of cells, tissues and organs, became the major tenet of modern medicine with unprecedented impact on treating infectious, metabolic, cardiovascular and oncologic diseases. However, the even more recent emergence of synthetic biology - comprising powerful knowledge and means to genetically modify a living cell - is propelling mankind into a completely new era. This is because we have now the armamentarium to not only correct cellular defects, but to also bestow brand new capabilities on our own cells. Thus, we can deal with diseases in an unprecedented way, according to man's rather than nature's design. This is a scenario that clearly deviates from nature's genetic evolution script and suddenly opens up the door towards rationale or "intelligent" genetic design. Using specific examples, we will discuss why this is a "singularity" in the history of mankind raising a whole new set of social and philosophical issues, dilemmas and controversies. This reflects the opinion of the author solely and does not represent the official opinion of Kite Pharma Inc. Dr. Bot's background is in immunology and oncology, applied to drug development and gene therapy. He has authored or co-authored more than 75 research articles, reviews, book chapters and monographs in basic and applied immunology. Dr. Bot also authored patents and patent applications on DNA vaccines, microparticle-based technologies, and immunotherapies for autoimmune, infectious and oncologic diseases. He is the current Editor in Chief of the International Reviews of Immunology and the Section Editor, Immunology and Immunotherapy, of the Journal of Translational Medicine. Prior to joining the senior management of Kite Pharma Inc, Dr. Bot was Vice President of Research at Mankind Corporation. Previous appointments include the Scripps Research Institute in La Jolla, Alliance Pharmaceutical Corporation in San Diego, and Allecure Pharmaceuticals in Valencia, CA. He obtained his M.D. at the University of Medicine and Pharmacy in Timisoara, Romania and his Ph.D. in Biomedical Sciences at Mount Sinai School of Medicine in New York.



A Medieval Mystery: On Nicole Oresme's Idea Of Curvitas

Bogdan Suceavă, PhD Professor of Mathematics, Department of Mathematics, California State University, Fullerton

In a paper published in 1952, J. L. Coolidge points out that "the first writer to give a hint of the definition of curvature was the fourteenth century writer Nicolas Oresme". Coolidge writes further: "Oresme conceived the curvature of a circle as inversely proportional to the radius; how did he find this out?" This question is the starting point of our investigation. 'Tractatus de configurationibus qualitatum et motuum', written by Orseme sometime between 1351 and 1355, contains the key. We discuss N. Orseme's

work and the historical moment when the first definition of curvature was stated Bogdan Suceavă is a Romanian writer who works as a Professor in the Department of Mathematics, California State University, Fullerton. Bogdan left University of Bucharest in 1996 to pursue his doctorate in mathematics at Michigan State University, where his thesis was defended under Dr. Bang-Yen Chen's supervision. His 2004 novel "Coming from an Off-Key Time" is translated into Bulgarian, Hungarian, English, French and Czech. His novel Miruna, a Tale received the 2007 Bucharest Writers Association Fiction Award and in 2014 appears in English. His most recent book in Romanian is Memoirs from an Ideal Library, Polirom, essays, 2013.



The Science Of Art: Natural History Of Intuition And Aesthetics

Joe Ferguson, PhD Clinical Psychologist, Laguna Beach, CA; Former Vice President, Dish Network Engineering

Intuition and aesthetic sensibility both arise in human experience from a common unconscious source, without explanation, as a summary judgment of fitness that synthesizes the diverse array of mental and biophysical processes that constitute a human personality. The sensory, perceptual and cognitive capacities that enable humans to do both art and science can only be understood in context of the adaptive evolution of intelligence. Intuition and aesthetic judgment are two sides of the same

coin, representing both the pinnacle and the base of intellectual capacity; so far anyway. The arts and the sciences all depend utterly upon this capacity. Following his MBA from Wharton and a career in technical and executive roles with a variety of technology companies, Dr. Ferguson took his doctorate in clinical psychology and now practices personal counseling and psychotherapy in Laguna Beach, California. Though not an artist himself, Dr. Ferguson periodically lectures at the Laguna College of Art and Design on the nature of aesthetic perception and judgment. Dr. Ferguson has also collaborated with Dr. Adrian Stoica, of JPL on a variety of projects including the biometric analysis of cognitive processes and states (thinking).

Session 3: Lifestyles and Death-Styles, Spirituality, and Experimentation



I Almost Died. Needlessly. Will You?

John Tanner, PhD Director at NuSci: The Nutrition Science Foundation, Monrovia, CA, CEO at Tanner Research

John suffered near-fatal cardiac arrest four years ago. Since then, he has studied intensely the causes of heart disease, the leading killer in this country. To his surprise, he found that heart disease can be completely avoided through a proper diet, and that cancer, stroke, diabetes, high blood pressure, and about 30 other diseases can be reduced, avoided, or reversed by this same diet. According to John, while the overwhelming majority of us think we are eating healthy, unless we change, about 75% of us will die needlessly from diseases caused by our poor diet. In this talk, John will tell us his story and the scientific information we need to avoid heart disease and other leading killers. John Tanner earned his Ph.D. in Computer Science from Caltech, in 1986. John is Founder and CEO of Tanner Research, Inc., a company that develops and markets Electronic Design Automation (EDA) software tools to designers of integrated circuits. Tanner Research also performs advanced electronic R&D under government DoD contracts. Areas of emphasis include mixed-signal integrated circuit design, image processing, MEMS (micromachine) design and nano-optics. In addition, John facilitated the creation of a pogo stick that uses a flexing fiberglass spring to propel riders 10 feet in the air. John is now developing an autonomous agriculture robot for intra- field produce transport. Tanner Research is among a handful of companies to be named to the "LA Fast 50" five years in a row.

Medical Intuition And Energy Medicine: From Ancient Spiritual Traditions To Modern Scientific Breakthroughs

Liliana Cerepnalkoski, MD Pioneer in the field of medical intuition and energy medicine, Los Angeles, CA

Explore the merger of Science and Spirituality. Ancient healing methods once labeled “myth” are now being researched as cutting-edge breakthroughs by western scientific methods. Learn how medical intuition can support both personal and planetary transformation and our evolution from homo sapiens to “Homo Luminous”, as we examine the new life paradigm that factors Energy into the equation! Dr. Liliana Cerepnalkoski is a pioneer in the fields of medical intuition, energy medicine, human consciousness and transformation. Liliana is passionate about educating the general public, as well as medical professionals, in developing their own intuitive abilities and energy management skills, and contributing to the emergence of a new paradigm of life that factors in energy-consciousness as part of the equation. She is currently writing her first book depicting her journey of discovery into the world of intuition and subtle energies. Liliana lives in Los Angeles, California and travels lecturing on the subjects of Science and Spirituality.



Session 4: Healthcare and Business



Global Organizations - For Global Health Panel Presentation Summary

Hortenzia Beciu, Director for the Middle East and Africa, Johns Hopkins Medicine International (JHI)

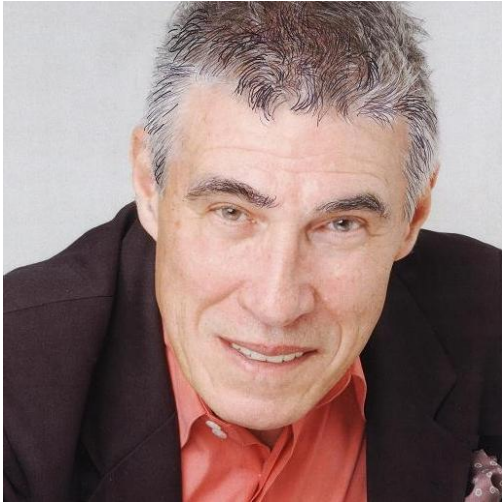
Are global organizations such as the World Bank and Johns Hopkins International contributing to Global Health, how and for how long? There are several models by which the international community is striving to contribute to strengthening the health systems and the population health of low and middle-income countries. Organizations such as World Health Organization, World Bank, Bilateral organizations and Universities such as Johns Hopkins are very different in terms of their contribution to the health sector (areas of influence or change) but also in the financial mechanisms put in place to motivate the needed transactions between stakeholders. The presenter will explain the differences in how global health is tackled by different organizations with the pros and cons related to their interventions. The presenter will also discuss the different role that the public and private sector plays in promoting health and improving health outcomes of their constituencies and how Middle Eastern region is different and or similar from the other regions such as Eastern Europe and what can be done to address the health problems in these regions. What role plays medical and leadership innovation in making health a more easy to tackle issue in terms of access, affordability, information asymmetry, better outcomes and client satisfaction. Ms. Hortenzia Beciu is the Director for the Middle East and Africa at Johns Hopkins Medicine International (JHI). Ms. Beciu provides directions and oversight in project management, market research and analysis leading to market strategy. Ms. Beciu has extensive experience in the health sector, working with governments, development partners and various health industry groups (hospital sector, pharmaceuticals, medical technology and information technology). Before joining the Hopkins team, she worked at the International Finance Corporation (IFC) as Coordinator for the Corporation's relations with the health industry and review of investment climate and business environment issues related to strengthening the role of the private health sector in emerging markets. She also led a large review on the financing and economics of scaling up education for health workers in low- and middle-income countries. She also worked for several years in the World Bank, conducting high- level health policy reviews as well as designing, implementing and supervising health systems projects as well as with the Results for Development Institute as a country lead for Sierra Leone. Prior to her work at the World Bank group she also worked with the Pan American Health Organization and Institute for Health Services Management in Romania. Hortenzia holds a medical degree from the University of Pharmacy and Medicine, Carol Davila, Bucharest, Romania and a Master in Global Health, International Health, from the George Washington University.

Panel on Business and Entrepreneurship

Moderator: Jacob Segal, MBA (Anderson School, UCLA), Principal of Investors Research Group (IRG)

Panelists: Hortenzia Beciu, Adrian Bot, Joe Ferguson, Mircea Goia, Daniel Marcu George Roth, and John Tanner

Art Exhibition



Jerry W. McDaniel is a well-established fine artist. He was born at a farm on Rabbit Ridge near Union Furnace, Ohio, in 1935. After graduating from Logan Sr. High School in 1953 he was awarded a scholarship to The Columbus College of Art and Design (CCAD), Columbus, Ohio, where he graduated as Class President in 1957. His greatest influence during this period was Dean Joseph V. Canzani.

Jerry said CCAD was the four greatest years of his life. He started his art career in New York City in 1957, and opened the J. W. McDaniel Studios in 1961. With 52 consecutive weeks of full-page advertisements for PANAM Airlines which were published in The New York Times on Mondays, The Miami Herald on Tuesdays and in the Boston Globe on Wednesdays, the Los Angeles Times on Friday, and in between in Miami, New Orleans and in San Francisco, followed by 300 drawings appearing in advertisements for

Intercontinental Hotels world-wide, the sun did not set for five years on Jerry's art.

1963 to 68, Jerry studied with Angelo Savelli and Henry Pearson at the New School for Social Research in New York. This was the beginning of his move into the fine arts. In 1966 Jerry created The Harlow's poster for New York's and the world's first disco. In 1971 Jerry was one of the founding members of the Advertising Design Department, Fashion Institute of Technology FIT/SUNY, New York, NY. In 1994 Jerry became Chair of the Advertising Communications Department at FIT. He earned an MA in Computer Communication Art from the New York Institute of Technology (NYIT) in 1987. He is a member of The New York Society of Illustrators (SI), Broadcast Designers Association (BDA), The American Institute of Graphic Arts (AIGA), and The Graphic Artists Guild (GAG) and was a founding member of that guild. McDaniel's work has been published in many books including "The Illustrator in America" and "Icons and Images."

Jerry has shown his art in numerous exhibitions and has original work in many collections including The Metropolitan Museum of Fine Arts in New York, the Smithsonian and The US Air Force Art Collection at the Pentagon, Washington, DC. He had several solo exhibitions since his move to California in 2005. The most recent exhibition took place at the Fine Art Gallery at Valley Performing Art Center in September-October 2014.

Jerry has also been very active in the Romanian Art events. He created a series of paintings representing Lucian Blaga's poems, which were used for a road trip around California in 2008 (Los Angeles, Hollywood, San Francisco, and Palm Springs) as a visual background for Lidia Lazu's (a singer, dancer, and poet from Bucharest, Romania) recitals of poetry. He was invited as the international Guest of Honor at the Salon ARTIS 2010 in Bucharest Romania, organized by the "Ligne et Couleur" French non-profit Association. Jerry was invited to exhibit his art at the Romanian Cultural Days event 1-4 December 2011, Atheneum, Düsseldorf – Essen. He had a solo exhibition in Beverly Hills at the Klein Fine Art Academy in September 2012, sponsored by the Viitorul Roman Society (VRS), where two pieces by the artist were donated. One is the painting of "I want to dance" from the series with the same name that he created after Blaga's poem and also showed in 2011 at the Atheneum event in Germany. He also has created a series of drawings inspired the well-known Romanian painter Tucelescu. He also did a poster that featured Ilie Nastase the Romanian tennis star for Philip Morris's International South American tennis tour (8 days in seven countries).

Web presence: www.jerrywcdanielstudios.com, http://en.wikipedia.org/wiki/Jerry_McDaniel, <http://www.ic-art-gallery.com/>



Mustard at Sonoma

Jerry W. McDaniel 2009



"I want to dance" one in a series of 6 paintings

Jerry W. McDaniel 2009



Nightscapes

Jerry W. McDaniel 2009



The childhood of painter **Alexandru Darida** sounds more like something from a fairy tale than from reality. Born to an Italian father and Romanian mother, he grew up amidst breathtaking medieval castles in Transylvania, in the city of Satu Mare – the region famous as the birthplace of the Dracula legend. The romantic imagery of his youth and the artistic talents of his older brother Ioan, a specialist in art restoration and conservation, with a PhD in the subject and an art advisor for ALIS Auction House Bucharest, provided the framework for Darida’s own artistic endeavor.

After graduating from the Ecoles des Beaux Arts in Romania, in 1978, Darida struggled as an artist with the restraints on creative freedom imposed by the communist regime. Behind the forbidding iron curtain, he was limited to painting what the government told him to paint, and was denied permission to paint anything else. Overwhelmed by the restrictions imposed upon him, he realized that he had to escape the tyranny of communism in order to fully pursue his artistic passion. In 1985, Darida made a courageous escape to Italy, where he was determined to pursue his new-found artistic freedom in the city of Rome. He enrolled for studies at the then small private Benedetti Liberal Academy of Art in Rome. Savoring his artistic freedom, Darida traveled extensively through the museums of Western Europe, seeing masterpieces for himself that he could never have seen in communist Romania. He visited museums in Venice, Florence, Sienna, Bologna, Naples and elsewhere, finding particular inspiration in the work of Botticelli, Rembrandt and Modigliani. By 1987 Darida was tired of being pursued by the Romanian government. He sought the help of Clelio Darida (no relation), undersecretary of the Minister of the Interior, former Mayor of Rome and an admirer of the artist’s work. Darida immigrated to the United States that year, going to Chicago where he continued his studies at the American Academy of Art under the influential teacher and watercolor artist Irving Shapiro, who ventured out into nature for his inspiration.

Artistic style and influences

Darida considers art to be “the soul of the people” and feels that “if you touch people’s hearts then that art will stay forever”. His style is closely associated with the chiaroscuro technique initially pioneered by Leonardo da Vinci, further developed by Caravaggio, and finally perfected by Rembrandt to achieve a dramatic intensification of action or atmospheric mood with a dimension of psychological depth.

The post-romantic art of Alexandru Darida harks back to the radiance of medieval illuminations. Claudia Moscovici in “Romanticism and Postromanticism”, writes: “Darida’s women are allegorical phantasms that populate our childhood fantasies and dreams. His application of paint is both delicate and rough; soft plays of light and shadow highlight the luminosity of gold. At the same time, the vitality of heavy, swirling paint applied with a palette knife endow his paintings with a modern feel”.



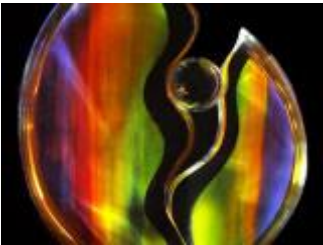
Darida’s style has become refined over the years, with many of his works featuring, or even being applied to, musical instruments and/or incorporating natural and manmade objects as part of what has become to be known as “Vibrant Expression.” Darida exhibits a seamless transition from one medium and subject to another, and he sees a correlation between the message he seeks to convey and the medium of the art form. Hence, he chooses the medium of acrylic for his sculptures that are influenced in their form by the Romanian sculptor Constantin Brâncuși (1876-1957), because it is transparent, just as you can see through the many layers of thin glazes that he applies in his paintings. The contemporary vibrant expression is described by Sarah Seamark, Editor in Chief of Art World, in the May 2008 issue: “Darida utilizes found objects that merge elements of abstract and sculptural forms that represents a reconciliation with self and our surroundings. Their use, in

combination with Darida’s classic painting technique, is designed to create a distinguished, forward-looking style.”

Due to his passion for music and philosophy, as well as his restless temperament and craving to discover an ideal of purity, his subjects are in a state of constant flux. Darida tackles such controversial issues as stem cell research, renewable green energy sources, man’s place in relation to nature, and music related to the cosmic forces. The color – or absence of color – shape and meaning of his work all has its roots in a certain universal energy. This force runs through all of Darida’s work as he extends his earlier artistic exploration of man and nature to the hot issues of the environment, global warming, and green energy. He sees the subjects as interlinked with stem cell research in that the quality of the future of mankind, indeed all of life on earth, is at stake on these fronts. In the process of addressing powerful philosophies and ideals on such topics he seeks through his artwork to create a buzz and encourage dialogue – hence his moniker of artist as social activist.

Awards, recognition and the love of music and art

Darida’s museum placements include the Powerhouse Museum and the Sydney Opera House in Sydney, Australia, and his work had been featured at Municipal Galleries across Romania, in the Smithsonian Museum in Washington DC, Illinois State Museum and the Museum of Art in Bucharest, Romania. He is the recipient of numerous awards including the Formello-Roma International Prize for Painting, and the Award for Excellence in the Multimedia Miniatures Show in Romania. Alexandru is heavily involved with music – which he finds inspirational, soothing and even a bit magical. He paints to music and often finds inspiration in the voice of his wife, Marianna, an accomplished opera singer. He is an experienced Madrigal conductor, and plays the piano (adding with self-effacing charm that he is “not very good” but finds it relaxing, nonetheless.) “Between painting and music,” he says, “that is my life!”

<p>Abstract Art</p> 	<p>Figurative Art</p> 	<p>Sculpture</p> 
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Katherine Arion is painter, muralist, printmaker and illustrator; she was born in Bucharest Romania. She graduated from Tonitza School of Fine Arts in Bucharest. Following graduation from the Nicolae Grigorescu Academy of Fine Arts, she exhibited at Galateea Gallery in Bucharest, Romania. Her art's first viewing was at the UNICEF Congress Conference and in a solo show at "Romanian Student Museum." Her student work was added to the Heritage Collection of the Romanian.





*“I seek through my lenses the harmony and beauty of the World;
something sacred, but not something that stays on a pedestal:
something that moves, interacts and through which the viewer can get
a better sense of himself, too.”*

Eva Halus is a Romanian-born artist who came to Canada 25 years ago. She studied Graphic Design at the Institute of Fine Arts «Nicolae Grigorescu», in Bucharest and at Concordia University, in Montreal.

She exhibited in many galleries and libraries in Montreal and this year in May she organised a group exhibition with 23 Romanian painters at Valmi Gallery, in Outremont. She also teaches art, including a Japanese Painting technique, called SOUIBOKU. She is a journalist at Accent Montreal-romanian based journal, writing about arts and culture.

Eva Halus is the Artistic Director of the Romanian Cultural Association since 2010.

She published a French-romanian poetry book, «Fragments/Fragmente» in 2012 and an English poetry book, «Of me and you» in 2014, both at the Reflection Publishing Editing House in Sacramento California. A new poetry book (in Romanian), «Muza descompusa», will see the light probably in September 2014. All books are illustrated by the author.

The pictures were taken in Montreal, where the artist resides. A lot more photos are available on FineArtsAmerica.org and are available at www.evahalus.com





Maria Zamfir Bleyberg was born in Romania. She grew up enjoying the magnificent Romanian mountains, the colorful country side with its small villages, and the warmth of the Black Sea, which enhanced her sensitivity to the beauty of nature. Since childhood, she has shown interest in both colors and mathematics. After finishing high school, Maria decided to pursue a degree in Mathematics and a PhD in Computer Science at UCLA. She was a professor for 43 years, spending a lot of time indoors, in front of the computer doing research, or in front of her students, teaching math and computer science.

Upon retiring from the Kansas State University, Maria decided to pursue her love for color and start painting. In the past few years she has spent more time outdoors, enjoying the wild beauty of the Kansas prairie and the warmth of the Californian coast. The walks on the old country roads and fields in Kansas and the explorations of the hidden canyons of the Santa Monica mountains in Malibu have incited her to seek the interweaving of colors, lights and shadows, and textures. Maria attended many workshops to learn more about colors, which increased her passion for painting. She is currently working in oil under the supervision of the renowned artist Cheryl Kline at the Cheryl Kline Art Academy. She has been a member of the Manhattan Watercolor and Columbian Artists guilds, in Kansas. At present, Maria is a member of the Pacific Palisades Art Group and a board member of the Malibu Art Association. Maria's paintings have been shown in many juried exhibitions, some of which are in private collections.



2014 ARA New Members

ARA Full Members SUA	ARA Corresponding Members
Bulucea, Constantin	Shandru, Ovidiu Ilie (RO)
Calciu, Andrei	Chistruga, Boris (RM)
Catanescu, Florea	Nichita, Elena (RM)
Centikaya, Sevil	Toaca, Zinovia (RM)
Chivu, Eugen	
Cozmuta, Ioana	
Darida, Alexandru	
Dragoi, Valentin	
Drechsler, Daniel	
Ilies, Marc Antoniu	
Imbarus, Aura	
Lelea, Margareta	
Mateescu, Gheorghe	
Mindicanu, Ala	
Oprea, Tudor	
Opris, Ioan	
Pop, Sergiu	
Rahmn, Masoud	
Rotundu, Costel	
Sarchisian, Adrian	
Stanciu, Lia	
Zigoreanu, Lucian	

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