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INTERNATIONAL CONGRESS OF BIOMEDICAL SCIENCES | YOUNG PROFFESSIONALS & STUDENTS | 1 MAY- 4 MAY 2013, TIRANA, ALBANIA

AL MEDICUS
FACULTY OF MEDICINE, UNIVERSITY OF TIRANA

PROMOTING MEDICAL RESEARCH, FOR A BETTER HEALTH CARE

International Congress of Biomedical Sciences-Albania 2013 was successfully held during the first week of May at Tirana International Hotel. ICBMS 2013 aimed to let young health professionals experience and be exposed to high-level research and at the same time, have the possibility to interact and learn from the current most well-known figures of academic world. It provided 500 talented medical and biomedical professionals and students with the opportunity to present their research to an international audience. As part of the "Excellent Initiative" of the Faculty of Medicine, University of Medicine, Tirana, Albania which aims the promotion of scientific research, it helped to build a scientific profile of the faculty in the upcoming years and to reinforce its position as a research institution in the region. We would like to thank you the President of the Congress Prof.Dr. Bajram HYSA and the Head of the Scientific Committee Prof. Acad. Bashkim RESULI for the strong support in successfully finalizing this important event.

The presentations included a wide variety of biomedical topics, ranging from different disciplines of clinical medicine, surgery, public health to molecular biology and bioethics. These presentation sessions were interspersed with guest lectures by prominent international speakers such as *Lawrence Rosenberg*, M.D., PhD, Chief of Surgical Services&Research, Jewish General Hospital, McGill University, Montreal, Canada, *Brigitte Strahwald*, M.D., MS, Ph.D candidate Ludwig-Maximilians-Universität, Munich, Germany, *Abbas Dehghan*, M.D, PhD Erasmus Medical Center, Netherlands and some Albanian well-known health professionals working abroad such as *Altin Stafa M.D,* Interventional Neuroradiology, Maggiore Hospital, Bologna Italy, Head of Committee Albania Unit of International Network of the UNESCO Chair in Bioethics, *Kita Sallabanda* M.D Ph.D, Neurosurgery Department, Gruppo IMO, Madrid, Spain, The keynote speakers came and shared their knowledge and experience on a wide range of scientific trends on these last decades such as Regenerative Medicine, B-cell transplantation in Diabetes, Personalized Medicine, Risk Communication, Medical Ethics, Translational Medicine and some of the most novel discoveries in oncology treatment. All the presentation were in English which made it a very challenging achievement for the Albanian participants.

Soon, the Organizing Committee will open the Call for Application and Abstract Submission for ICBMS-Albania 2014. Please feel free to visit our website www.icbms-albania.com.

Jana NANO,
Co-Chair of Organizing Committee
Epidemiology, Ludwig-Maximilians University, Munich, Germany

"Through promoting medical research we want to give a new perspective to the improvement of Health Care Quality in Albania. We wanted to establish an academic tradition not only for the University-as a research Institution, but even provide new methods of Evidence-Based Medicine. There is still so much work to be done in identifying the real burden of diseases or the cost-effectiveness of treatments in order to better implement our Public Health Policies. ICBMS Albania will definitely stimulate a communication platform that pushes new ideas, partnerships, and synergies in our scientific processes. We are looking forward to welcome you next year in order to share and enlighten with new discoveries and achievements".

Taulant Muka, Eralda Turkeshi
Co-Chair of Organizing Committee
Public Health, Erasmus MC, Rotterdam, the Netherlands

"ICBMS-Albania aims to promote health research among young medical professionals and students not only in Albania, but in the entire Balkan region. By encouraging the new generation getting into research, ICBMS-Albania gives them a new scientific space

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to show up their work and to get in touch with best researchers in the world. After the first successful ICBMS-Albania 2013, we are enthusiastic to announce the second ICBMS-Albania 2014, where more than 500 scientists all over the world will participate to share the last discoveries and developments in the medical field. Moreover, I am thrilled to announce that for 2014, there will be more than 10 traveling grants for the best applications we will receive"

BEST ORAL PRESENTATION

THE EFFECT OF FLT3 KINASE INHIBITOR IN COMBINATION WITH A N-GLYCOSYLATIONINHIBITORANDER STRESSINDUCERONPROLIFERATION, SIGNALING AND SURVIVAL OF ACUTE MYELOID LEUKEMIA CELLS

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Introduction: Acute myeloid leukemia (AML) is the most common type of leukemia in adults. Multiple types of genetic defects and differentiation states of affected myeloid progenitor cells give rise to a heterogenous family of diseases. The most frequent type of genetic lesions in AML is activating mutations in the gene encoding receptor tyrosine kinase *FMS-like tyrosine kinase 3* (FLT3). These mutations causally contribute to the disease and FLT3 is therefore explored as therapeutic target. One very potent FLT3 inhibitor which is currently explored in clinical trials is named AC220 (Quazartinib). An emerging problem which is common to all clinical applications of tyrosine kinase inhibitors, is the development of resistance by appearance of secondary mutations in the FLT3 receptors. In this study, we examined whether inhibition of FLT3 N-glycosylation and stimulation of endoplasmic reticulum (ER) stress by tunicamycin (TM) enhances quazartinib-induced growth inhibition in AML cell lines.
Methods: We examined the effects of tunicamycin and AC220 on AC220-sensitive AML cell line. This experiment was characterized in three different setups in order to have assessments for three different directions: cell proliferation, signaling activity and induction of apoptosis.
The cell proliferation was assessed using a proliferation/viability assay known as MTS assay. This technique can be used to measure amounts of viable cells based on conversion of some non-colored reagents to colored products by metabolic cell activity. Signaling elucidation was carried out through measuring the activity of phosphorylated key signaling molecules such are: FLT3 ITD, STAT5, AKT and ERK1/2, using a western blot with corresponding phosphosite-specific antibodies. And, in the end we assessed the induction of apoptosis by emplying the technique of flow cytometry (FACS) with two different dyes, Anexin V and 7-AAD (7-amino-actinomycin D). All these experiments were performed in a human AML cell line called MV4-11, after treatment with above mentioned drugs.
Results: Almost in minimal cytotoxic concentrations of tunicamycin we identified the enhancement of quazartinib-induced antiproliferative effects. Hence, from MTS assay we gained very promising results. On the other hand, although we found an aglycosylated form of 130kDa FLT3 ITD, the data we took from imunoblotting exerted just a mild combination effect between these two inhibitors. This suggests that downstream signaling pathways such are RAS-RAF-MEK-ERK pathway and PI3K-AKT pathway are not involved at all in this process. Interestingly, results taken by FACS analysis have shown that combination induced apoptosis.
Conclusion: Overall, our data demonstrate that tunicamycin significantly enhances the susceptibility of Acute Myeloid Leukemia cells to quazartinib, and that sensitization may be associated with activation of the ER stress pathway and with inhibition of FLT3 ITD N-glycosylation.
Keywords: FLT3 ITD, ER stress, Quazartinib, Tunicamycin, Human AML cells

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BEST POSTER PRESENTATION

RHEUMATOID FACTORS, ANTI-MCV ANTIBODY, ANTI-JO-1 ANTIBODY LEVELS AND MUCOPREOTEINS IN RHEUMATOID ARTHRITIS

Retina Çapuni, Shqipe Bektashi, Petrit Gecaj, Dashnor Fiska, Steljan Buzo

Introduction: In 20 patients with Rheumatoid Arthritis (RA) we have observed the relationship between Rheumatoid Factor (RF), anti-mutated citrullinated vimentin antibody levels (anti-MCV), autoantibody directed to histidyl-Trna-synthetase (Anti-Jo-1) levels and mucoproteins.
Methods: The level of Rheumatoid Factors were quantified using the kit Quantia-RF. Quantia-RF is a quantitative turbidimetric immunoassay for detection of Rheumatoid Factors of the IgM class. Serum anti-MCV antibody levels and serum anti-Jo-1 antibody levels were quantified using ELISA-method, immunoblots technology produced by Orgentec, Germany. Mucoproteins were quantified with colorimetric determination of mucoproteins in serum (Winzler's fraction). Mucoproteins are separated from other proteins by precipitation with Perchloric acid and then detected with Coomassic colouring. We have used a kit produced by MallincKrodt Baker BV.
Patients and Methods: Serum was collected from 20 patients with suspected Rheumatoid Arthritis. Serum obtained at the time of clinical evaluation was tested in order to evaluate Rheumatoid Ractors (RF), anti-MCV antibody, anti-Jo-1 antibody and mucoproteins. The determinations of anti-MCV and anti-Jo-1 were quantified in automated system Elisa Alegria. The determination of RF and mucoproteins was done with a program photometer BTS 310 Plus.
Results: The results of the measurements and simple statistical analysis are present in the table.

In the above table we describe the results of measurements of rheumatoid factors, anti-MCV antibody, anti-Jo-1antibody and mucoproteins in 20 patients with Rheumatoid Arthritis. **Conclusion:** For the diagnosis of rheumatoid arthritis, the most specific and sensitive marker is Rheumatoid Factor followed by anti-MCV antibodies.
Keywords: rheumatoid factor, anti-MCV antibody, anti-Jo-1 antibody, mucoproteins.

	Number of cases	Mean value	Deviation Standard D.S	Pathologic interval	Normal Interval	Percent of positivity
Rheumatoid Factors (RF)	20	54 IU/ml	42 IU/ml	12-96 IU/ml	0-10 IU/ml	90%
Anti-MCV	20	68 IU/ml	39 IU/ml	29-107 IU/ml	0-20 IU/ml	70%
Mucoproteins	20	66 IU/ml	39 IU/ml	27-105 IU/ml	0-120 IU/ml	10%
Anti-Jo-1	20	4.5 IU/ml	1.24 IU/ml	3.3-5.7 IU/ml	0-20 IU/ml	0%

BEST STUDENT'S ORAL PRESENTATION

TELLING THE TRUTH TO THE PATIENT ABOUT THE DIAGNOSIS AND PROGNOSIS AND HOW DOES THIS EFFECT ON PHYSICIAN-PATIENT'S COLLABORATION AND IN THE TREATMENT EFFICIENCY

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Aim: How does it influence in the physician-patient' collaboration and also in the treatment efficiency, telling patient the truth about his diagnosis and prognosis. Which are the main reasons that don't let the physician telling patient the truth.
Methods: 100 physicians and residents were surveyed in Tirana University Hospital Center "Mother Teresa". They were asked about the frequency of telling patient

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the truth, about situations when they have not been told the truth, so what have they communicated in these cases, if there have been any incident when the truth have been revealed and about the influence of telling truth patient on the physician-patient collaboration and also in the treatment efficiency.

Results: 38% of the surveyed persons usually tell the truth to the patient, 23% of them tell it often and 15% of them always. In the cases when the truth is hidden, the main reasons are:

• The relatives asked for it
• Uncertain diagnosis
• They think telling the truth would have a negative impact on patient's psychological state.
• Grave prognosis

The two last reasons are more frequent. In 29% of cases when they haven't communicated the truth, they have referred a diagnosis with better prognosis. In 25% of cases they have only explained them the real condition without giving any reasons.

Though physicians have acted in this way, 62% of them think that the truth should absolutely be told. They also think that the collaboration is always improved when the prognosis is good and very good. In bad prognosis, 25% of them think that the truth usually improve the collaboration, 21% of them sometimes and 20% of them always.

Conclusions: Most of interviewed think that in good and very good prognosis the truth always improves the collaboration; while in bad prognosis 25% of them think that the truth usually improve the collaboration, for 20% of them this always improve it and for 21% of them sometimes.

Keywords: The truth, the diagnosis, the prognosis, the physician-patient's collaboration.