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BOOK OF ABSTRACTS

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Keywords: Covid-19 death, mental change, fear

THE WAY BIOINFORMATIC ANALYSIS COULD FACILITATE THE IDENTIFICATION OF TP53 GENE MUTATIONS IN COLORECTAL CANCER

Attila Tamás György¹, Zsolt Kovács¹

¹UMFST Tîrgu Mureş

Background: Mutation and thus inactiveness is most commonly observed in case of the TP53 gene in various types of malignant diseases. Considering this, it would be important to adapt a procedure that could facilitate structural analysis of the TP53 gene sequenced from the sample of a patient with colorectal cancer. Bioinformatics provides a good alternative to this, allowing the comparison of the tested gene with the normal one. **Objective:** The aim of our research is to create a procedure that, with the help of bioinformatics, can facilitate the detection of mutation hotspots of the TP53 gene in patients diagnosed with colorectal cancer. **Material and methods:** Most mutations in TP53 are missense and lead to the synthesis of a defective p53 protein that will not be able to perform its function. To detect mutations in TP53, we chose a bioinformatics approach, based on a one-by-one comparison of the sequenced gene with the normal one, with specific exon analysis. The application is written in Python 3.0 and is based on the BioPython library. For the ease of use, the source lines of code running in the background also have a frontend interface, which is available online to anyone. **Results :** With the help of our solution a specific analysis of the TP53 gene can be done, facilitating the detection of any mutations compared to the normal sequence. The mutations already described and classified in bioinformatics databases of malignancies can help in the process of interpretation of the results. **Conclusions:** Although an existing change in the structure of the gene does not mean malignancy, it can definitely help to assess the risk of developing colorectal cancer. In conclusion, the procedure we have developed could make a significant contribution in the diagnosis of colorectal cancer, making it a widely applicable tool in modern medicine.

Keywords: TP53 gene, colorectal cancer, bioinformatics, mutation hotspots

THE IMPORTANCE OF SLEEP DURING EXAM SESSION

Munteanu Rareş¹, Pinte Simon Ionela, Marius-Catalin Cosma, Andreea-Georgiana Nan, Nan Anda, Maria Dorina Paşca¹

¹UMFST Tîrgu Mureş

Background: It is known that sleep plays a key role in maintaining a good mental health, helping in a process of qualitative and lasting memory. It is well known among medical students that lack of sleep is a common habit because they have a large amount of information to accumulate. The number of hours slept per night can influence the student's productivity, so that in a more stressful period the lack of sleep can trigger a more severe state of fatigue, which is observed by a low performance. **Objective:** Following the study, we wanted to capture the impact and role of sleep in the life of the medical student during the exam session. **Material and methods:** We conducted a descriptive cross-sectional study where 72 students were included as sixth year respondents at the Faculty of Medicine, and as a method of psychological investigation the questionnaire was used. **Results :** Of the 72 subjects, 24% were male and 76% were female. An urban prevalence of 71% was observed. Living conditions showed that 58% live in rented accommodation, 25% in dormitories and 17% with their parents. The importance of sleep was observed in a percentage of 100% motivating this answer by the fact that sleep provides them with energy (42%), a better concentration (25%), an efficient yield (19%) and they feel more productive (14%).) during the session. Fatigue was felt more strongly in 82% of students, stress (51%) being the main factor motivating them, failing to plan their time effectively. 54% of students sleep at least 6-8 hours / night before an important exam, 18 (46%) of respondents motivating that they feel more rested, 33% consider that they do not sleep at least 6-8 hours / night, stress and going through the subject for examination being the main causes. **Conclusions:** Sleep is of major importance in achieving the goals of medical students. Stress is a significant factor in short-term fatigue. For good mental health, a restful and good quality sleep is recommended.

Keywords: sleep, mental health, exam session