

including CD, intrinsic and extrinsic fluorescence and dynamic quenching showed that mutations resulted in different structural features in mutants.

**Keywords:** Photoprotein, Mnemiopsin, Luminescence, Mutant.

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#### Abstract No.149

##### **Evaluation of the Effects of Glucosaminoglycan-Containing Yeast Product (Mycosorb) and Sodium Bentonite on Serum Biochemical Parameters in Broiler Chickens During Aflatoxicosis**

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The aim of this study was to determine the impact of aflatoxin (AF), yeast glucosaminoglycan (YG) and sodium bentonite (SB) on serum biochemical parameters in broiler feed with naturally contaminated diet with aflatoxin. Three hundred, 7-day-old Ross 308-strain broiler chickens were chosen and randomly assigned to 10 dietary treatments in 3 replicates of 10 chicks. Treatments were 1) Diet free from aflatoxin (control group), 2) naturally contaminated diet with aflatoxin (negative control group), 3, 4, 5, 6, 8, 9 and 10) naturally contaminated diet with aflatoxin supplemented with 1.5% SB, 3% SB, 0.05% YG, 0.1% YG, 1.5% SB + 0.05% YG, 1.5% SB + 0.1% YG, 3% SB + 0.05% YG and 3% SB + 0.1% YG, respectively. Serum biochemical parameters were investigated on 42 days of age. The measured aflatoxin in contaminated diet, confirmed by thin layer chromatography (TLC), was 250 ppb. Data was evaluated with SPSS. The results showed that cholesterol, uric acid and triglyceride in chickens fed with diet containing aflatoxin alone were lesser than that of those fed with control diet. Their Aspartate Amin transferase enzyme (AST) and Alanin amin transferase enzyme (ALT), however, were greater compared with those fed with control diet. Chickens were received additives with various levels in their diets showed that a decrease in AST and ALT and increase in cholesterol, uric acid and triglyceride, and an improvement in biochemical parameters when compared with the negative control group. The addition of YG and SB, individually and combination to the AF-containing diet ameliorated the

adverse effects of aflatoxin, but 0.1% Yeast glucosaminoglycan supplementation to the contaminated diet with aflatoxin proved to be much more effective in the amelioration of the adverse effect of AF on serum biochemical parameters.

**Keywords:** Aflatoxin, Broiler chickens, 0.1% YG, AST, ALT.

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#### Abstract No.150

##### **Parsprot, a New Algorithm for Processing and Analyzing of Protein and Nucleic Acid Codes in Bioinformatics**

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We have developed a new algorithm named as "Parsprot", appropriate for the processing and analyzing of protein and nucleic acid sequences and their related structures using raw sequence and pdb file as an entry. Considering amino acid or nucleotide codes as letters, it is possible to make two, three or k-Letter words with every defined sequence, in which we take into account degeneracy of sequential residues in raw sequences of proteins as well as Nucleic Acids. In this manner the number of k-Letter words will be 20k in protein sequences and 4k for Nucleic acid sequences, where k is the number of letters in each word. The output of this algorithm can be used in extracting sequence-based information of related proteins and genes, appropriate for using in different aspects of bioinformatics and neural network computations. It is also possible to determine the number of each residue position and that of k-Letter word incorporated into different secondary structural elements as well as their interactions with neighboring residues in 3D structure of protein. Further refinement of the method and its broader applications is currently in progress. It is also noticeable that we used Java web Application as a good and user friendly interface for developing above mentioned program.

**Keywords:** Algorithm, Parsprot, Amino Acid codes, K-Letter word, Computation, Java Web Interface, Program.