

2. Dept. of Biology, Science and Research Branch, Islamic Azad University, Tabriz, IR  
(E-mail: nasrinfaroughi@yahoo.com)

*Nerium oleander* is a kind of medicinal plants and has different biological activity such as antibacterial, antioxidant and cytotoxic effects. In the present work we used this plant leaves extract for evaluation of teratogenic effects on chicken embryo. For investigation, at first, dichloromethane extract of the leaves prepared. Dichloromethane extract solutions in DMSO were injected in air sac of chicken eggs at concentrations of 5, 10, 20, 40, 60 and 80 µg/eggs. 72h after incubation recording of survival fraction of the chickens at 19th day was showed that 73.4, 66.7, 53.3, 46.7, 35.7 and 26.6 percents of embryos were alive, respectively. Statistical analysis of the results showed that the extract induces mortality with LD50 of 24.80 µg/egg. The study of incidence of morphological and skeletal abnormality in the treatment groups showed that club foot, beak deformity and gastroschisis was occurred in morphology while caudal vertebrae deletion, unossification or uncalcification of caudal vertebrae and shortness of tibia were appeared in skeleton of the chickens. These data imply that the lethal effect of extract against chicken embryo was occurred in a dose-dependent manner. The study of the embryotoxicity of dichloromethane extract showed that, The leave extract of this plant can be used as a chemotherapy agent.

**Keywords:** *Nerium Oleander*, Toxicity, Abnormality, Chick Embryo.

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#### Abstract No.80

##### **Identification of Molecular Weight of Oocyte Vitellogenin Protein of Iranian Caviar in time of Inducing in Liver by Treatment of 17 Beta Estradiol Hormone, Secreted in to Bloodstream and Stored in Oocyte in Iranian Sturgeon as a Yolk Protein**

*Shirin Jamshidi\**, *Mohammadreza Kalbassi*, *Majid Sadeghizadeh*

Department of Fisheries science, University of Tarbiat Modares, Tehran, IR  
(E-mail: [jamshidi99@yahoo.com](mailto:jamshidi99@yahoo.com))

Iranian Caviar fish "*Acipenser persicus*" exist in the Caspian Sea basin (north of Iran). Unfortunately, nowadays, this fish has become an endangered species and listed as threatened, vulnerable, and endangered throughout their ranges. Population numbers of this fish has suffered a decline as a result of natural and anthropogenic factors such as the construction of dams, water pollution, over-fishing and

commercial operations for Caviar production. This fish consume for Caviar production and good flesh quality in Iran. Main protein of Caviar is vitellogenin, a phospholipoglycoprotein which is synthesized in liver and secreted in to bloodstream for accumulation in oocyte in reproduction cycles. There is a little information on vitellogenin protein in Persian sturgeon fish. The aim of this study was to assess the size of vitellogenin protein in bloodstream, changes and cleavage during transportation into oocyte in Persian sturgeon. Vitellogenin induction was detected after injection of 17 beta estradiol at concentration of at least 5 mg per kg of body weight. Immature sturgeons at juvenile stage do not naturally synthesize Vg, but strongly responded to exogenously injected hormone. After 3 injections, heparinated bloods were collected centrifuged in 4°C and plasma was separated. Plasma was diluted and electrophoresed by SDS-PAGE method was showed molecular weight of vitellogenin in this species. Vtg is cleaved into three yolk protein components: lipovitellin, phosvitin and beta component. Beside injection of juvenile fish, oocyte protein was selected from ovulated fish and vitellogenin protein was purified. Serum of injected fish was dialysed against distilled water. The precipitate was separated by centrifugation at 10 000 g for 15min at 4°C. The pellet was suspended in distilled water, recentrifuged and dissolved in 0.5 M NaCl. The solution was applied to a gel filtration column. Gel filtration with exact protein markers showed the size of this protein in blood. Gel preparation method was selected for purification of cleaved Lipovitellin from vitellogenin in oocyte. Antisera were raised in rabbits against purified vitellogenin in plasma and purified Lipovitellin (in oocyte) by intradermal injection of each sample emulsified in an equal volume of Freund complete adjuvant. Concentrations of proteins were 0.5 mg per kg body weight. Injections were conducted at four times. The Enzyme-linked immunosorbent assay for sturgeon Vg was developed to quantify serum Vg, using purified sturgeon Vg and anti-Vg. At the end, this stage and western blotting were done for demonstrate induction of vitellogenin in blood.

**Keywords:** *Acipenser Persicus*, Phospholipoglycoprotein, Vitellogenin, Blood, Oocyte.

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#### Abstract No.81

##### **Stabilization of an Atypical Bacillus Amylase by Adding Extra DX unit in EF-hand Like Motif**

*Leila Sadeghi*<sup>1</sup>, *Khosro Khajeh*<sup>\*1</sup>, *Nasrin Mollania*<sup>2</sup>,  
*Bahareh Dabirmanesh*<sup>1</sup>, *Bijan Ranjbar*<sup>1</sup>

1. Department of Biochemistry, Faculty of Biological Science, Tarbiat Modares University, Tehran, IR