Reviewer's report

Title: MAPK activation in mature cataract associated with Noonan syndrome

Version: 1 Date: 21 April 2013

Reviewer: Ahmad Mansour

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Scattered typographical mistakes throughout the reference section mainly. Example Ref 6 “complihensive scoring system for elevation Noonan syndrome” 2 mistakes in the same line of reference 6.

The authors diagnosed cataract at age 42 but mention” The cataract may have been observed during childhood, but lens opacity may have increased in severity with aging and accumulation of metabolic abnormalities”. They also proved MAPK activation and suggest the possible association of MAPK cascade with cataract formation in cataract with Noonan syndrome. Cataract occurs in 8% of Noonan syndrome (Lee NB. Ocular manifestations of Noonan syndrome. Eye 1992;6:328-34). In a prospective study of congenital heart disease, around 1% had Noonan syndrome (3 out of 240 had Noonan and 105 were syndromic) and 2% had congenital cataract (6 of 240) (Mansour A, et al. Ocular pathology in congenital heart disease. Eye 2005;19:29-34). It is a RASopathy, as the syndrome is in the family of RAS-MAPK pathway disorders. The demonstration of this disorder in the lens is additional proof of this well-known deficiency and a cause-effect of the lens opacification in this disease.

This addition to the literature fall in the scope of findings that shed new light on the possible pathogenesis of a disease.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.