The objective of this study was to analyze the effect of intervention of instant noodle enriched with carotene as provitamin A from carrot and RPO intervention on consumption, body weight, Feed Conversion Rate (FCR), serum retinol concentration, liver retinol concentration and immune response in Sprague Dawley rats. Experimental design was applied in this study using rats (Sprague Dawley). The experimental rats were divided into three groups. These groups were assigned to different treatment categories: (1) a control group fed standard diet without noodles (n=12); (2) a group receiving standard diet and noodles enriched with β-carotene from carrot (n=12); (3) a group receiving standard diet and noodles enriched with β-carotene from Red Palm Oil (n=12). Standard diet and noodles were given daily during eighth weeks. Standard diet were given ad libitum in every group. The noodle were given at the top of standard diet as additional diet. Serum retinol concentration and liver retinol concentration were assessed at baseline and endline. Immune response (Imunoglobulin G serum concentration) were assessed every two weeks by killing the rats (n=3) every groups. Result showed that the RPO group had the highest β-carotene and vitamin A intake. On the other side, noodle made of carrot powder is an effective noodle in improving serum and liver retinol concentration.

Keyword: instant noodle, provitamin A, carrot, red palm oil, serum retinol, liver retinol, imunoglobulin G, rat.