SYNOPSIS

Name of Sponsor/Company: Omninvest Ltd.	**Individual Study Table Referring to Part of the Dossier** **Volume:** **Page:**	*For National Authority use only*
Name of Finished Product: Fluval AB Novo suspension for injection		
Name of Active Ingredient: A/California/7/2009 (H1N1)-derived NYMC X-179A reass. virus; A/Victoria/361/2011-like A/Texas/50/2012(H3N2)-derived NYMC X-223A reass. virus; B/Massachusetts/2/2012 (wild type)		
Title of Study:	Immunogenicity and Tolerability Study of Fluval AB Novo Suspension for Injection (trivalent, seasonal influenza vaccine, active ingredient content: 6 µg HA/strain/0.5 ml) for Children and Adolescents.	
Study Number	FABNovo-H-16	
EudraCT Number	2013-003449-40	
Investigators and Study Centres:	**Gábor HACSEK MD** Paediatrician's Office (Gyermekorvosi Rendelő), **Andrea KULCSÁR MD** Clinical Immunization Consultancy (Gyermek Védőoltási Szakrendelés), Szent László Hospital Site (Egyesített Szent István és Szent László Kórház-Rendelőintézet)	
Publication (reference):	None	
Phase of development:	Phase III	
Studied period **Date of first enrolment:** **Date of last completed:**	 October 18, 2014 December 9, 2014	
Objectives:	To assess immunogenicity and safety of Fluval AB Novo seasonal influenza vaccine with 3 x 6 µgHA active ingredient in two age groups (children and adolescents). **Immunogenicity:** To assess immunogenicity of a single intramuscular injection of Fluval AB Novo suspension for injection as measured by haemagglutination inhibition (HI) test. **Safety and tolerability:** To evaluate safety and tolerability (incidence of adverse events) of a single intramuscular injection of Fluval AB Novo suspension for injection.	

Name of Sponsor/Company: Omninvest Ltd. **Name of Finished Product:** Fluval AB Novo suspension for injection **Name of Active Ingredient:** A/California/7/2009 (H1N1)-derived NYMC X-179A reass. virus; A/Victoria/361/2011-like A/Texas/50/2012(H3N2)-derived NYMC X-223A reass. virus; B/Massachusetts/2/2012 (wild type)	**Individual Study Table Referring to Part of the Dossier** **Volume:** **Page:**	*For National Authority use only*
Methodology:	Study subjects were enrolled into two groups according to age and assigned to the following vaccine groups: • **children 3-11 years:** single intramuscular injection of Fluval AB Novo 0.25 ml suspension for injection; • **adolescents 12-18 years:** single intramuscular injection of Fluval AB Novo 0.5 ml suspension for injection. Subjects were observed for 30 minutes after the vaccination for any immediate reactions. All adverse events were collected during the period of Visit 1 (Day 0) to Visit 2 (between Day 21 and Day 28). Serum samples for immunogenicity assays were collected immediately before immunization on Visit 1 (Day 0) and on Visit 2 (between Day 21 and Day 28) in all subjects. Immunogenicity was evaluated by HI test	
Number of patients (planned and analysed):	Considering approximately 17% of drop-out (one participant out of six), in total one hundred and twenty (120) healthy volunteers of age between 3-18 years (sixty (60) subjects in each age group) were specified to be enrolled in order to achieve at least one hundred (100) evaluable subjects (fifty (50) subjects in each age group). A total of one hundred and twenty (120) healthy volunteers (males and females) were selected for inclusion in the study, and screened prior to vaccination. All subjects entered in the study and were vaccinated (ITT population). All of the one hundred and twenty (120) subjects (sixty (60) subjects in each age group) attended the control visit at Day 21-28 of whom data were available and evaluated at Day 21-28 (PP population).	
Diagnosis and main criteria for inclusion:	• Children aged 3 to 11 years, adolescents aged 12 to 18 years from both sexes; • Are in good health (as determined by vital signs and existing medical condition) or are in stable medical condition; • Female volunteers of childbearing potential with a negative result from the urine pregnancy test prior to vaccination who agrees to use an acceptable contraception method or abstinence throughout the trial and not become pregnant for the duration of the study; • Capability of adolescent participants aged 12 to 18 years and the legitimate representative of all volunteers to understand and comply with planned study procedures;	
Diagnosis and main criteria for inclusion (cont.):	• Adolescent participants aged 12 to 18 years and the legitimate representative of all volunteers provide written Informed Consent (IC) prior to initiation of study procedures; • Absence of existence of any exclusion criteria.	

Name of Sponsor/Company: Omninvest Ltd. **Name of Finished Product:** Fluval AB Novo suspension for injection **Name of Active Ingredient:** A/California/7/2009 (H1N1)-derived NYMC X-179A reass. virus; A/Victoria/361/2011-like A/Texas/50/2012(H3N2)-derived NYMC X-223A reass. virus; B/Massachusetts/2/2012 (wild type)	**Individual Study Table Referring to Part of the Dossier** **Volume:** **Page:**	*For National Authority use only*
Test product, dose and mode of administration, batch number:	**Product:** Fluval AB Novo suspension for injection (trivalent, seasonal influenza vaccine, active ingredient content: 6 µg HA/0.5 ml of seasonal A/H1N1, A/H3N2 and B influenza antigens each) with aluminium phosphate gel adjuvant. **Lot number:** FL-N-05/13 **Method of administration:** i.m. injection **Doses administered** **children 3-11 years:** 1 x 3 µg HA/strain/0.25ml **adolescents 12-18 years:** 1 x 6 µgHA/strain/0.5ml	
Duration of treatment	Single dose	
Reference therapy, dose and mode of administration, batch number	None	
Criteria for evaluation: **Efficacy:** **Safety:**	Immunogenicity measures are assessed as follows: At least one of the assessments should meet the indicated requirements: • number of seroconversions or significant increase in antihaemagglutinin antibody titre >40%; • mean geometric increase of antihaemagglutinin antibody titres: >2.5; • the proportion of subjects achieving an antihaemagglutinin antibody titre ≥40 should be >70%. Safety and tolerability are assessed in comparison to available safety and tolerability data on Fluval AB Novo influenza vaccine. Safety criteria include data from the physical examination and observed local and systemic reactions and adverse events. Any other indicators of reactogenicity, all adverse events occurring during the study (between study day 0 - study day 21-28) either judged as related or not to vaccination by the investigator, were recorded.	
Statistical methods:	Descriptive statistics (mean, standard deviation, median, minimum and maximum) for age at enrolment are calculated overall and by age group. Distributions of subjects by sex and previous influenza vaccination are summarized overall and by age group.	

Name of Sponsor/Company: Omninvest Ltd. **Name of Finished Product:** Fluval AB Novo suspension for injection **Name of Active Ingredient:** A/California/7/2009 (H1N1)-derived NYMC X-179A reass. virus; A/Victoria/361/2011-like A/Texas/50/2012(H3N2)-derived NYMC X-223A reass. virus; B/Massachusetts/2/2012 (wild type)	**Individual Study Table Referring to Part of the Dossier** **Volume:** **Page:**	*For National Authority use only*

Summary - Conclusions

Efficacy Results:

Antigen	Age group	GMTR	Seroconv. %	Seroprot. %
A/H1N1	3-11 years	4.337 (3.432, 5.480)	61.67%	91.67%
	12-18 years	4.702 (3.595, 6.151)	66.67%	96.67%
A/H3N2	3-11 years	4.982 (3.847, 6.451)	58.33%	95.00%
	12-18 years	5.993 (4.207, 8.539)	61.67%	95.00%
B	3-11 years	4.262 (3.383, 5.370)	66.67%	80.00%
	12-18 years	4.757 (3.762, 6.014)	70.00%	86.67%

Safety Results:

Administration of the vaccine was well tolerated by the participants of the study. The study vaccine proved to be safe. All adverse reactions occured during the study were mild and moderate, recovered completely without sequale. There were two unlisted adverse reactions (vomiting and abdominal pain) observed in the conduct of the study. No death, serious adverse event or other significant adverse event that could be related to the vaccine occured during the study.

Conclusion

Immunogenicity of the Study Drug met all criteria specified regarding to all three (3) virus strains 21-28 days after immunization with in both age groups. The Study Drug was safe and well tolerated. On the basis of the results of the study it can be concluded that vaccination with Fluval AB Novo suspension for injection is safe and effective in children and adolescents.

Date of Report February 25, 2015.