Connecting the World for a Cause





welcome NOTE from the president

Over the last decade developing countries vaccine manufacturers have built a successful track record of producing innovative, high quality and affordable vaccines, changing the landscape of vaccination globally.

The year 2012 was a remarkable year for the global immunization community and for DCVMN.

It started with the WHO's global polio eradication initiative announcement of India success in achieving one year polio–free since its last case, recorded on 13 January 2011. This great progress toward global eradication is based on OPV (oral poliovirus vaccine). In this gigantic task, Panacea Biotec, Haffkine, and Bharat Biotech International, in collaboration with Biofarma and others, contributed by producing & supplying billions of doses of Oral Polio Vaccines, which helped as the most critical "weapons" in the arsenal of WHO and the Indian Ministry of Health and Family Welfare, preventing the crippling disease.

Further, the global consultation effort, led by the Decade of Vaccines Collaboration, was endorsed as the Global Vaccine Action Plan, a roadmap to prevent millions of deaths by 2020 through more equitable access to vaccines for people in all communities, and adopted by the WHA on May 25th. DCVMN supports the GVAP and shares the vision of a world in which all individuals and communities enjoy lives free from vaccine-preventable diseases. We all have been deeply committed to this goal since our inception and wish to continue our work to get this job done.

With support of GAVI Alliance, the number of pentavalent suppliers to UNICEF has increased from one supplier between 2001-5, to 5 suppliers today, with BE and LG having prequalified pentavalent now, and more to come, as an increasing number of governments is willing to provide pentavalent vaccination to children, leading to the highest-ever vaccine coverage among populations in developing countries. As more manufacturers cooperate within the network to develop better, more suitable and affordable combination vaccines, we can move towards achieving universal vaccination globally.

Thanks to increased efforts and joint investments in research and development (R&D), many new vaccines that specifically target the disease burden in developing countries are bringing new hope. Widespread introduction of MenAfriVac™ in sub-Saharan African countries could prevent more than 1 million cases of illness over the next decade. Another recent example of outstanding innovation within the DCVMN group of companies is the recent approval of the world's first ever hepatitis E vaccine, jointly developed by Xiamen Innovax Biotech and Xiamen University. We need more of these bold corporate-academic initiatives to foster innovation and respond to needs of developing countries populations.

Together the Network members have the technologies, the knowhow and the capacity to produce over 40 vaccines types, contributing to prevent 2.5 million deaths each year as estimated by WHO. The Network has a growing number of companies that produce a growing number of vaccines to supply the growing demand of vaccines for developing countries people. Today we count 37 members in 14 countries, 12 more members than last year, contributing to growth and empowerment of emerging economies to supporting vaccination as public good.

I'd like to thank all members, speakers, resource institutions, sponsors, participants, contributors for their willingness, time and dedication to be part of DCVMN and to be here at the XIIIth Annual General Meeting, giving us the opportunity to advance not only professionally but also personally.

Last but not least, I wish you all a productive and enjoyable meeting and hope you may take the opportunity to visit some of the famous Bali.

Mahendra Suhardono President, DCVMN

EXECUTIVE COMMITTEE MEMBERS



Mr. Mahendra Suhardono President PT Bio Farma, Indonesia



Dr. G.V.J.A.Harshavardhan Vice President, Bharat Biotech International Limited, India



Dr. Luciana Cezar Cerqueira Leite Instituto Butantan, Brazil



Dr. Suresh S Jadhav GAVI Board Alternate Serum Institute of India, India



Dr. Akira Homma Treasurer, Bio-Manguinhos (Fiocruz), Brazil



Dr. Morena Makhoana The Biovac Institute, South Africa



Dr. Steven Gao Xiamen Innovax Biotech Co. Ltd., China



Ms. Mahima Datla GAVI Board Representative Biological E. Limited, India



Dr. Yonglin WU China National Biotec Group China



Dr. Sonia R Pagliusi Executive Secretary DCVMN International

List of Member Countries



Argentina



Bangladesh



Brazil



Cuba



Egypt



India



Indonesia



Iran



Mexico



People's Republic of China



Republic of Korea



South Africa



Thailand



Vietnam





Name of the company: Beijing Minhai Biotechnology Co., Ltd

Head of Institution : Dr. Zheng Haifa

Established : 2004 Country : China

Overview of the company

Beijing Minhai Biotech focuses on the R&D, manufacture and distribution of human use vaccines, the company provides high quality products including Hib conjugate vaccine, Hib-DTaP combined vaccine and MR vaccine. The company located in Daxing Biomedical Base, Beijing.

Beijing Minhai Biotech has a competitive pipeline of new vaccine products under development including bacterial vaccine, viral vaccine and genetic engineering vaccines. The company has a successful technology transfer with Sanofi Pasteur on

rabies vaccine and will continue seek collaboration opportunities domestically and internationally.

Shenzhen Kangtai Biological Products Co., Ltd - the twin company of Minhai - is the largest Hepatitis B vaccine manufacturer in China. The company located in Shenzhen, Guangdong province.



Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
Hib	Hemophilus Influenzae type b vaccine	Vail	0.5 ml
DTaP-Hib	Diphtheria, Tetanus, acellular Pertussis, and Hemophilus Influenzae type b combined vaccine	Vail	0.5 ml
MR	Measles and Rubella combined vaccine	Vail	Lyophilized
Нер В	Hepatitis B vaccine	Vail / Ampoule	10, 20, 60 ug

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
B Meningococcal Vaccine					Q1/2017
15-valent Pneumococcal Conjugate Vaccine					Q1/2017
Trivalent Cholera Vaccine					Q1/2016
5-valent Rotavirus Vaccine					Q1/2017
Hep A-Hep B Combined Vaccine					Q1/2016
4-valent HPV					Q1/2017
H1N1 Genetic Vaccine					Q1/2017
Genetic Herpes Vaccine					Q1/2017
Genetic EV71 Vaccine					Q1/2017
13-valent Pneumococcal Conjugate Vaccine					Q1/2016
4-valent Meningococcal Polysaccharide Vaccir	ne				Q1/2016
4-valent Meningococcal Conjugate Vaccine					Q1/2016
DTaP Vaccine					Q1/2016
Hib Conjugate Vaccine (frozen-dried)					Q1/2016
Rabies Vaccine (MRC-5)					Q1/2016
23-valent Pneumococcal Polysaccharide Vaccin	е				Q1/2014
Inactivated Hepatitis A Vaccine					Q1/2014
Split Influenza Vaccine			/ /		Q1/2016
Recombinant Hepatitis B Vaccine (Hansenula)					Q1/2014

Areas of Interest for Collaboration

- Technology Transfer
- o IPV vaccine
- Overseas Registration and Distribution

Contact Details -

Name of contact person: Li Nan

Address:: 1 Simiao Road, Biomedical Base

Daxing District

Phone: +86 10 59613632

City: Beijing Mobile:

State: Fax: +86 10 59613655

Country: China email: minhaigjhz@126.com

Postal code: 102600 Website: www.biominhai.com





Name of the company: Beijing Tiantan Biological Products Co., Ltd.

Head of Institution : Mr. ZENG Lingbing, General Manager

Established : 1998

Country : China

Overview of the company

Beijing Tiantan Biological Products Co., Ltd. (abbreviated as TiantanBio) is a state-controlled listed corporation for high technology, engaging in research, manufacturing and marketing of biological products such as vaccines, blood derivatives and diagnostic kits. It's a spin-off company from National Vaccine & Serum Institute (NVSI) and became public listed in the China Shanghai Stock Exchange since 1998. TiantanBio owns several subsidiary companies, such as Chengdu Rongsheng Pharmaceutical Co., Ltd., Changchun Keygen Biological Products Co., Ltd., and several serum sampling companies. Now China National Biotec Group Company Limited is its controlling shareholder. At present, TiantanBio has more than 2200 staffs,



including a batch of influential senior technical personnel working in the field of R&D, manufacturing and quality assurance.

TiantanBio has the most complete portfolio of vaccines in the National Immunization Program. The leading products are Hepatitis B Vaccine (Yeast Recombinant), Attenuated Measles Mumps and Rubella Combined Vaccine Live, Attenuated Measles and Rubella Combined Vaccine Live, Diphtheria Tetanus and Acellular Pertussis Combined Vaccine Adsorbed, Poliomyelitis Vaccine in Dragee Candy (Human Diploid Cell) Live, Japanese Encephalitis Vaccine (Vero Cell) Inactivated, Attenuated Freeze-dried Varicella Vaccine Live, Influenza Vaccine (Spilt Virion) Inactivated, H1N1 Influenza A Vaccine (Spilt Virion) Inactivated, Human Albumin, Human Immunoglobulin (pH4) for Intravenous Injection, Human Immunoglobulin and so on.

Product Name	e Description	Type Vial/Ampoule	Presentation 0.5/1.0/5.0/10.0 ml
TEMREVAC	Hepatitis B Vaccine made by Recombinant DNA Techniques in Yeast	Ampoule	0.5ml , 1.0ml
	Yellow Fever Vaccine, Live	Vial	6 doses 0.3ml
	Influenza Vaccine (Split Virion), Inactivated	Injector /Vial	0.5ml
RUBEVAC	Rubella vaccine, Live (Human Diploid Cell)	Vial	0.5ml
	Japanese Encephalitis Vaccine (Vero Cell), Inactivated	Vial	0.5ml
	Measles, Mumps and Rubella Combined Vaccine, Live (M/R/MR/MMR)	Vial	0.5ml
	Poliomyelitis Vaccine in Dragee Candy (Human Diploid Cell), Live	Pill	1g
Shengdoushi	Freeze-dried Live Attenuated Varicella Vaccine	Vial	0.5ml
Trivac	Diphtheria, Tetanus and Acellular Pertussis Combined Vaccine, Adsorbed (DTaP)	Ampoule	0.5ml
	Group A Meningococcal Polysaccharide Vaccine	Vial	10 doses 300µg
	Typhoid Vi Polysaccharide Vaccine	Ampoule	2 doses 1 ml
	Anti-human T Lymphocyte Rabbit Immunoglobulin	Vial	25mg
	Human Hepatitis B Immunoglobulin	Vial	100IU
	Human Albumin	Vial	10ml/25ml/50ml
	Human Immunoglobulin(pH4) for intravenous Injection	Vial	25ml/50ml
	Human Tetanus Immunoglobulin	Vial	250IU

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Recombinant Interferon 1b					
Liquid Poliomyelitis Vaccine, Live					
Meningococcal ACWY Vaccine (Polysaccharide)					
Meningococcal A+C Conjugate Vaccine					
MMR+ Varicella Vaccine		7			
Pertussis component vaccine					
Inactivated Poliomyelitis Vaccine					

Areas of Interest for Collaboration

- O Combined Vaccine
- Large-scale Production Technology
- O Quality System
- O New Antigen

Contact Details -

Name of contact person: Ms. ZHANG Yucui

Address: No. 4 Sanjianfang Nanli, Chaoyang District,

Beijing 100024, P.R.C.

Phone: +8610-65762911-2543

Mobile: +86-13911757012 City: Beijing

State: Fax: +8610-65792747

Country: China email: ttbiozyc@yahoo.com.cn

Website: http://www.tiantanbio.com Postal code: 100024





Name of the company: Bharat Biotech International Limited

Head of Institution : Dr. Krishna M. Ella, Chairman & Managing Director

Established : 15 February 1996

Country : India

Overview of the company

Based in Genome Valley, Hyderabad, India, Bharat Biotech is a multidimensional innovation-oriented Biotechnology Company specializing in Manufacturing, R&D and Distribution of vaccines and bio-therapeutics with a focus on developing novel vaccines for region specific neglected diseases in compliance with Global IPR. Built with an investment of over USD 100 million, Bharat Biotech is the first bio-pharma facility in India to be approved by Korean Food & Drugs Administration (KFDA).



Innovation at Bharat Biotech has resulted in biotech products and vaccines for Hepatitis B, Typhoid, Rabies, pandemic H1N1 and Epidermal Growth Factor. Bharat Biotech has a strong vaccine and biotech pipeline for Typhoid Conjugate, Rotavirus, Dengue, Chikungunya, MDR S. typhi and myocardiac infarction. Bharat Biotech holds a portfolio of 50 product patents and has delivered over 1.5 billion doses of vaccines to over 65 countries worldwide.

Bharat Biotech was incorporated as a Company in 1996 at Hyderabad, Andhra Pradesh. Founded by Dr. Krishna M. Ella and Mrs. Suchitra K. Ella, Bharat Biotech's vision is to develop novel vaccines against neglected diseases of the developing world. Dr. V. Krishna Mohan, Executive Director, heads the day to day operations.

Brand Name	Product	Description	
Revac-B+	Hepatitis B Vaccine, rDNA (Pichia pastoris), 20 µg of HBsAg/1.0 mL (Adult)	Chromatographically purified using HIMAX TM technology, without the use of ultracentrifugation and cesium chloride	
Revac-B mcf	Hepatitis B Vaccine, rDNA (Pichia pastoris) Thiomersal Free, 20 µg of HBsAg/1.0 mL (Adult)	Thiomersal and Cesium Chloride free formulation.	
INDIRAB	Rabies Vaccine Vero Cell-Derived; Pitman-Moore strain of Rabies virus Potency ≥ 2.5 I.U/0.5 mL	Chromatographically purified Vero cell based rabies vaccine.	
TYPBAR	Vi Capsular Polysaccharide Typhoid Vaccine Vi Capsular polysaccharide of S. typhi (Ty2 strain) 25 µg/ 0.5 mL	Vi Capsular Polysaccharide from S. Typhi	
BIOPOLIO	Trivalent Oral Poliomyelitis Vaccine Live, Attenuated (Sabin) 0.1 mL (2 drops)		
BIOPOLIO M1	Monovalent Oral Poliomyelitis Vaccine Type 1 Live, Attenuated (Sabin) 0.1 mL	Oral polio vaccine, trivalent,	
BIOPOLIO M3	Monovalent Oral Poliomyelitis Vaccine Type 3 Live, Attenuated (Sabin) 0.1 mL	bivalent, monovalent P1 and P3.	
BIOPOLIO 1&3	Bivalent Oral Poliomyelitis Vaccine Type 1&3 (Sabin) 0.1 mL		
ComVac4-HB (DPT+Hep-B)	Diphtheria, Pertussis (w),Tetanus, Hepatitis-B Vaccine (Quadrivalent Vaccine) 0.5 mL	Tetravalent combination vaccine with HepB.	
ComVac5 (DPT+Hep B+Hib)	Diphtheria, Pertussis(w),Tetanus, Hepatitis-B & Haemophilus influenzae Vaccine, (Pentavalent Vaccine) 0.5 mL	Pentavalent combination vaccine, Liquid.	
ComVac3	Diptheria Tetanus Pertussis Vaccine (DTP Vaccine) 0.5 mL	Trivalent combination vaccine, Liquid.	
` REGEN-D 150	r- Human Epidermal Growth Factor Gel 150 μg/gm	Epidermal Growth Factor for diabetic footulcers.	
REGEN-D 60	r- Human Epidermal Growth Factor Gel 60 µg/gm	Epidermal Growth Factor for Burns, skin grafts, wound healing.	
BIO-ENOX 20 mg	Low Molecular Weight Heparin Enoxaparin Sodium Injection. 20mg/0.2 mL (2,000 anti-Xa I.U)		
BIO-ENOX 40 mg	Low Molecular Weight Heparin Enoxaparin Sodium Injection 40mg/0.4 mL (4,000 anti-Xa I.U)		
BIO-ENOX 60 mg	Low Molecular Weight Heparin Enoxaparin Sodium Injection.60mg/0.6 mL (6,000 anti-Xa I.U)	Low Molecular wt Heparin Sodium Inj, in vials, and PFS,	
BIO-ENOX 80 mg	Low Molecular Weight Heparin Enoxaparin Sodium Injection. 80mg/0.8 mL (8,000 anti-Xa I.U).		
HEPASOLV 1000 IU	Heparin Sodium Injection, Sterile	Llan aria Ca diuma lai in viala	
HEPASOLV 5000 IU	Heparin Sodium Injection, Sterile	Heparin Sodium Inj, in vials,	
HEPASOLV 25000 IU	Heparin Sodium Injection, Sterile		
BioHib	Purified capsular polysaccharide of Hib [covalently bound to 20-40 µg Tetanus toxoid (PRP-TT)] 10 µg	Heamophilus Influenza type B TT- Conjugate vaccine,	

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Rotavirus Vaccine Candidate 116E					
Typhoid Conjugate					
Japanese Encephalitis					
Malaria Vaccine Candidates					
THR-100 [Recombinant Staphylokinase]					
Lysostaphin for S.aureus infections, topica					

Areas of Interest for Collaboration

- Development of Novel vaccines for Neglected diseases
- Development of novel adjuvants
- Development of novel therapeutics

Contact Details -

Name of Contact Person: Mr. Sai D. Prasad

Genome Valley, Shameerpet Mandal

Address: Bharat Biotech International Limited Phone: +91 40 2348 0567

City: Hyderabad Mobile: +91 9848887866

State : Andhra Pradesh Fax : +91 40 2348 0560

Country: India email: prasadsd@bharatbiotech.com

Postal code: 500 078 Website: www.bharatbiotech.com





Biological E. Limited Celebrating Life Everyday

Name of the company: Biological E. Limited

Head of Institution : Dr. Vijay Kumar Datla, Chairman & Managing Director

Established : 1953

Country : India

Overview of the company

Biological E. Ltd. (Bio E) a globally focused biopharmaceutical company develops, manufactures and markets innovative vaccines and biologics that respond to healthcare needs worldwide. Established in 1953 at Hyderabad, India, Bio E, which is privately owned, is India's first private sector vaccines and biologics company. In the past 58 years, Bio E has achieved a dominant position in the Indian vaccines market. It is a major supplier to the National Immunization Programme (EPI programme) of the Government of India. Over the past 10 years alone Bio E has supplied over 1 billion doses of vaccine towards the immunization needs of India. With the receipt of our first WHO pre-qualification in 2009 Bio E has been supplying to

> UN organisations and expanding its market reach globally.



So far the company has achieved WHO Prequalification status for three vaccines i.e Tetanus Toxoid, Pentavalent Lyophilised & Pentavalent Liquid. We are exporting these vaccines to UN organisations and other international markets.

The company's product development efforts are driven by an internationally experienced management team and through former strategic alliances with leading biotechnology / pharmaceutical companies and research institutes around the world such as Evans, Glaxo, Solvay, ICI, Aventis Pasteur, and Intercell. These alliances have allowed Bio E to expand its product range, market reach and inculcate the best international practices in manufacturing and management.

Product Name	e Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
BETT	Tetanus Toxoid (adsorbed) (TT)	Vial & Ampoule	0.5 / 5.0 / 10.0 ml
TRIPVAC	Diphtheria, Tetanus and Pertussis vaccine (adsorbed) (DTPw)	Vial & Ampoule	0.5 / 5.0 ml
BEVAC	Diphtheria & Tetanus Toxoid (DT)	Vial & Ampoule	0.5 / 5.0 / 10.0 ml
BE Td	Diphtheria and Tetanus vaccine (Td) (for adolescents & adults)	Vial & Ampoule	0.5 / 5.0 ml
BEVAC	Hepatitis B vaccine (recombinant)	Vial	0.5 / 1.0 / 2.5 / 5.0 / 10 ml
TRIPVAC HB	Diphtheria, Tetanus, w-Pertussis, Hepatitis B (recombinant) (DTPw+HepB)	Vial	0.5 / 1.0 / 2.5 / 5.0 ml
ERAPOL	Poliomyelitis Vaccine (Inactivated) (IPV)	Vial	0.5 / 5.0 ml
HiBE	Haemophilus type b conjugate vaccine (lyophilized) (Hib)	Vial (combipack)	0.5 / 1.0 / 2.5 / 5.0 ml
JEEV	Japanese Encephalitis Vaccine, Inactivated (Strain SA14-14-2 propagated on Vero cell line)	Vial	0.5 ml
ComBE Five	Diphtheria, Tetanus, Pertussis, Hepatitis B and Haemophilus type B conjugate vaccine (DTPw-Hep B + Hib)	Vial (lyophilized)	0.5 / 1.0 / 2.5 / 5.0 ml
ComBE Five	Diphtheria, Tetanus, Pertussis, Hepatitis B and Haemophilus type B conjugate vaccine (DTPw-Hep B -Hib)	Vial (liquid)	0.5 / 1.0 / 2.5 / 5.0 ml

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
DTwP-IPV					
Live Tetravalent Dengue Vaccine					
Tetravalent Rotavirus Vaccine					
Meningococcal Conjugate Vaccine					

Areas of Interest for Collaboration

- O Vaccines
- O Therapeutic Proteins

Contact Details -

Name of contact person: Ms. Kala Naidu

Address: 18/1&3, Azamabad Phone: +91 40 2760 3742

+91 40 3021 3999

City: Hyderabad Mobile: +91 98495 57083

State: Andhra Pradesh Fax: +91 40 2763 0307

+91 40 2761 5309

Country: India email: kala.g@biologicale.co.in

Postal code: 500 020 Website: www.biologicale.com





Name of the company: Bio Farma

Head of Institution : Iskandar, President Director

Established : August 6, 1890

Country : Indonesia

Overview of the company

Bio Farma is a state-owned vaccine manufacturer in Indonesia and it plays a vital role in supporting the National Immunization Program. All of vaccines needed by Government are supplied by Bio Farma. The company has an extensive and strong major goal to responsibly endure its high quality vaccine production whilst holding the awareness to persistently develop the green industry by covering all the aspects of the green industry's activities.

Bio Farma was established in 1890 and throughout its extended history, the company has gone a long way from its beginning



and has proven its strength to the world. This reputation has always been upheld properly and could be reflected from its magnificent qualification and ability to acquire WHO prequalification for its vaccines.

Bio Farma's products are exported to many countries through the direct distribution or UN agencies. Bio Farma actively involve in various international organizations such as WHO, International Vaccine Institute, DCVMN, and Self Reliance in Vaccine Production- Islamic Development Bank (SRVP-IDB).

In order to stimulate more breakthroughs ahead, the company pledge to conduct new products research, both independently or collaborate with research institutions. The partnership could lead to new vaccine development or new technology platform.

Product Name	Description	Type Vial/Ampoule	Presentation 0.5/1.0/5.0/10.0 ml
TT	Tetanus Toxoid Vaccine	Vial Uniject	5.0 ml/10.0 ml 0.5 ml
Bio-TT	Tetanus Toxoid Vaccine	Ampoule	0.5 ml
DT	Diphtheria and Tetanus Vaccine	Vial	5.0 ml
Td	Tetanus and Diphtheria Vaccine (for adult)	Vial	5.0 ml
DTP	Diphtheria, Tetanus and whole -cell Pertussis Vaccine	Vial	5.0 ml
DTP-HB	Tetravalent Combination Vaccine	Vial	5.0 ml
НВ	Hepatitis B Vaccine	Uniject	0.5 ml, 1.0 ml (for adult)
mOPV, bOPV	Monovalent, bivalent Polio Vaccine	Vial	1.0 ml
tOPV	Trivalent Oral Polio Vaccine	Vial	2.0 ml
Measles	Measles Vaccine	Vial	10 doses
BCG	Tuberculosis Vaccine	Ampoule	20 doses
Flubio	Seasonal flu Vaccine	Vial	0.5 ml

- 1. Rotavirus Vaccine
- 2. Sabin-IPV
- 3. Pentavalent (DTwP-HB-Hib) Liquid Vaccine
- 4. Flu Vaccine (H5N1 and seasonal flu)
- 5. Measles Rubella Vaccine

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Rotavirus Vaccine	1 1				2016
sIPV					2015
Pentavalent Vaccine					2013
Flu Vaccine		7			2015
Measles Rubella Vaccine					2014

Areas of Interest for Collaboration

- O Research
- O Product Development & Process Innovation
- O Marketing & Distribution

Contact Details -

Name of contact person: Iskandar

Phone:+62 22 203 3755 Address: Jl. Pasteur No. 28

Mobile: City: Bandung

State: West Java Fax: +62 22 204 1306

Country: Indonesia email: iskandar@biofarma.co.id

Postal code: 40161 Website: www.biofarma.co.id







Name of the company: Bio-Manguinhos - Institute of Technology on

Immunobiologicals

The Oswaldo Cruz Foundation - Ministry of Health

Head of Institution : Artur Roberto Couto

Established : Avenida Brasil, 4365 - Manguinhos -

Pavilhão Rocha Lima - 21040-360, Rio de Janeiro-RJ

Country : Brazil

Overview of the company

Bio-Manguinhos is a Technical Unit of Oswaldo Cruz Foundation (Fiocruz), Ministry of Health, dedicated to technological development and production of vaccines, biopharmaceuticals and IVD reagents for diagnosis. Formally established in 1976, Bio-Manguinhos plays a strategic role supplying most of the vaccines required by the Brazilian National Immunization Program.

Our production facility is one of the largest and most modern vaccine industrial plants in Latin America. We are investing heavily in technological innovation of immunobiological needed to public health programs and have established several national and international partnerships, in order to accelerate the incorporation of new production technologies. Two vaccines are pre-qualified by



WHO and are exported through the United Nations Agencies: the yellow fever and meningitis meningococcus AC vaccines. About 74 countries have already received these vaccines.

The production of kits for laboratory diagnosis has increased in the last year, especially for infectious and parasitic diseases, such as AIDS, Hepatitis C Leishmaniasis, Chagas Disease, Leptospirosis, among others. Around 11 million tests are produced each year.

The biopharmaceutical production of Interferon and Erythropoietin is around 12 million vials per year.

In 2012, Bio-Manguinhos began to supply two new vaccines for the National Program of Immunization (NPI): Polio inactivated virus vaccine (IPV) and measles, mumps, rubella and varicella vaccine (MMRV).

Most rewarding to Bio-Manguinhos has been the contribution to the success of the Brazilian National Program of Immunization.

the state of the s			
Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
DTP + Hib	Haemophillus influenzae type B, dipthteria, tetanus and pertussis vaccine	5 doses/vial	2.5 ml
Hib	Haemophillus influenzae type B vaccine	1 and 5 doses/amp	0.5 ml
Yellow Fever	Yellow fever vaccine	5,10 and 50 doses/vial	0.5, 1.0 and 25 ml
Polysaccharide Meningitis AC	Polysaccharide Meningiti AC vaccine	10 doses/vial	1.5 ml
OPV	Oral poliomyelitis virus vaccine	25 doses/tube	2.5 ml
MMR	Measles, mumps and rubella triple vaccine	10 doses/amp	5.0 ml
MMRV	Measles,mumps, rubella and varicella vaccine	1 dose/vial	0.5 ml
Rotavirus	Rotavirus vaccine	1 dose/vial	2.0 ml
10-valent Pneumococcal	10-valent Pneumococcal vaccine	1 dose/vial	0.5 ml

Vaccines pipeline:

- a. DTP/HB/Hib/MenC/IPV vaccine
- b. Dengue tetravalent vaccine (recombinant)
- c. Dengue tetravalent vaccine (inactivated)
- d. Yellow fever vaccine (attenuated)
- e. Yellow fever vaccine (inactivated)
- f. Yellow fever vaccine (one dose)
- g. Hepatitis A vaccine (inactivated)

- h. Influenzae pandemic vaccine (recombinant)
- Malaria vaccine (recombinant) i.
- j. Leptospirosis vaccine (recombinant)
- Polysaccharide Meningitis B vaccine
- Conjugate Meningite C vaccine
- m. Pneumo proteic vaccine

Stage of development of vaccines, biopharmaceutical, kits for laboratory diagnosis:

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Bacterial Vaccines	3	-	1	1	-
Viral Vaccines	8	-	-	-	-
Biopharmaceuticals	2	-	-	1	-
Kits for lab diagnosis	4	-	-	-	1

Areas of Interest for Collaboration

- Fermentation
- Prokaryotic expression
- Eukaryotic expression
- O Conjugation
- o Plant-based development (Dengue, Malaria, Men B, Men C, YF, Influenza, HAV)

Contact Details

Name of contact person: Mrs. Denise Maria Lobo Crivelli

Address: Avenida Brasil, 4365 - Manguinhos Phone: +55 21 3882-9329

City: Rio de Janeiro Mobile:

State: Rio de janeiro Fax: +55 21 3882-7176

Country: Brazil email: dlobo@bio.fiocruz.br

Postal code: 21040-360 Website: http://www.bio.fiocruz.br





Name of the company: BioNet-Asia Co., Ltd.

Head of Institution : Mr. Vitoon Vonghangool

Managing Director

Dr. Pham Hong Thai Managing Director

Established : 2001

Country : Thailand

Overview of the company

BioNet-Asia Co., Ltd is a biotech company focusing on the networking, development, manufacturing and supply of vaccines in emerging countries.

For the last ten years, BioNet-Asia has built a unique Biotech Network (BIONET) of manufacturers, experts and distributors dedicated to vaccines. We provide our partners with technological solutions and business growth opportunities. We ultimately share this common vision that strategic network collaboration is necessary to deliver rapidly conventional and innovative vaccines to the needlest.



BioNet has been supporting Vaccine Manufacturers in their rapid expansion into international markets and in proposing new growth opportunities. We have successfully facilitated several strategic public and private partnerships in the field of manufacturing and supply of vaccines worldwide.

BioNet is also a technology provider and can propose development collaboration or technology transfer of vaccines using innovative and efficient technologies.

BioNet is now leveraging its international expertise and vaccine networking to build up vaccine development capacity in Thailand with the aim to become a Regional Centre of Excellence in R&D and manufacturing of vaccines.

BioNet-Asia is already recognized as a pioneer in the vaccine development in Thailand. We use the most recent technologies available in the field of genetic engineering, protein conjugation and cellculture in order to produce recombinant acellular pertussis, dengue, hepatitis B and conjugate vaccines.

Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
NA	NA	NA	NA

- a. Acellular pertussis vaccine
- b. Haemophilus influenzae type b (Hib) conjugate vaccine
- c. Meningococcal conjugate vaccine
- d. Hepatitis B vaccine
- e. Adult combinations TdaP vaccine
- f. Pediatric combinations (tetra/penta vaccines)
- g. Dengue vaccine
- h. Japanese Encephalitis vaccine
- i. Chikungunya vaccine
- j. Protein carriers

Product Name	Product development R&D Phase	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year

Areas of Interest for Collaboration

- Distribution of vaccines
- Joint development
- Proposing technology transfer for Hib, rabies
- Searching for technology licensing of chikungunya, polio, rotavirus, human papillomavirus, and enterovirus EV-71 vaccines

Contact Details -

Name of contact person : Dr. Pham Hong Thai

Address: Hi-Tech Industrial Estate 81 Moo 1, Phone: +66 3595 0750-8

Baan Lane, Bang Pa-In

City: Ayutthaya Mobile:

State: Ayutthaya Fax: +66 3595 0759

Country: Thailand e-mail: info@bionet-asia.com

Postal code: 13260 Website: www.bionet-asia.com





Name of the company: Cadila Pharmaceuticals Limited

Head of Institution : Shri I.A.Modi, Chairman

Established : 28-02-1991

Country : India

Overview of the company

Cadila Pharmaceuticals is one of the largest privately held pharmaceutical companies in India. Over more than six decades, it has been developing and manufacturing pharmaceutical products and selling and distributing these in India and in over 90 countries around the world. It is a research-driven integrated healthcare solutions provider with a pharmaceutical product basket of 450 plus in therapeutic areas that include cardiovascular, gastrointestinal, analgesics, haematinics, anti-infectives and antibiotics, respiratory agents, antidiabetics and immunologicals. The state-of-the-art Research and Development (R&D) facility is manned by more than three hundred and fifty scientists.



The company has manufacturing facilities conforming to the most stringent international norms at Dholka, Ankleshwar, Kadi and Hirapur in Gujarat; Samba in Jammu and Addis Ababa in Ethiopia.

Cadila Pharmaceuticals has emerged on the World map with the development of world's first introductions like 'Polycap'- a novel drug combination for prevention of Cardiovascular Heart Disease; and 'Risorine', a boosted Rifampicin dosage for TB treatment. Cadila Pharmaceuticals also has a strong footprint in micropropagation and bioformulation through its Agro division.

Cadila Pharmaceuticals Ltd. has also formed a joint venture with Novavax, Inc. USA. The JV-CPL Biologicals will be developing and manufacturing vaccines, biological therapeutics and diagnostics in India.

Product Name	Description	Type Vial/PFS	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
Pandemic Influenza	H1N1 vaccine produced from VLP technology	Vial/PFS	0.5 ml/2ml vial
Seasonal Influenza Vaccine	Trivalent Influenza vaccine produced from VLP technology	Vial/PFS	0.5 ml/2ml vial
Rabies vaccine	Recombinant G-Protein produced by VLP technology	Vial/PFS	0.5 ml/2ml vial

- a. HPV Vaccine
- b. Malaria Vaccine
- c. Hepatitis B
- d. Hepatitis E
- e. Pneumococcal conjugate vaccine

Product Name	Pre Clinical		Clinical	Expected launch date	
rioddet Name	The difficult	Phase I	Phase II	Phase III	Quarter / Year
Pandemic Influenza		To be initiated next month			2013
Seasonal Influenza		CT initiated			2013
Rabies Vaccine		CT application submitted			2014

Areas of Interest for Collaboration

- O Vaccine-recombinant
- O Vaccine- cell culture based
- O Conjugate vaccine
- Adjuvant (Biological and small molecules)
- O Recombinant proteins and Monoclonal antibody for therapeutic use
- O In licensing /out licensing

Contact Details -

Name of contact person : Dr. Bakulesh M Khamar, Executive Director-Research

Address: Cadila Pharmaceuticals Limited Phone: +91-2718-225001

"Cadila Corporate Campus" Sarkhej-Dholka Road, Bhat

City: Ahmedabad Mobile: +91-9825325010

State : Gujarat Fax : +91-2718-225039

Country: India e-mail: bmk@cadilapharma.co.in

Postal code: 382210 Website: http://www.cadilapharma.com





Name of the company: China National Biotec Group (CNBG)

Head of Institution : Dr. YANG Xiaoming, President

Established : 1989

Country : China

Overview of the company

CNBG is a state-owned company and one of the subsidiaries of China National Pharmaceutical Group Corporation (Sinopharm). It is the largest vaccine and blood products manufacturer and supplier in China. CNBG consists of six institutes of biological products which are located in Beijing, Changchun, Chengdu, Lanzhou, Shanghai and Wuhan respectively. CNBG



is also the major shareholder of Beijing Tiantan Biological Products Co., Ltd. And Beijing Vigoo Biological Co., Ltd.

CNBG has nearly 10,000 employees, among which more than 4,000 are scientists and technicians. CNBG owns dozens of achievements with independent intellectual properties rights and are currently operating more than a hundred SFDA cGMP certified manufacturing lines enabling to manufacture over 200 types of biological products for disease prevention, therapeutic and diagnostic use, also including all the vaccines for Chinese EPI program.

CNBG has successfully integrated a flow of R&D, manufacturing, marketing and post-marketing activities for biological products and has become one of the few companies in the world that could offer the widest range of vaccines with large quantities.

Product Nam	ne Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
	Hepatitis B Vaccine (Yeast)/(CHO)	Ampoule/ Vial	5, 10, 20 μg
	BCG Vaccine for Intradermal Injection	Ampoule	0.25 mg
	Live Attenuated Oral Poliomyelitis Vaccine (Dragee Candy)	Pill	1g
Shanliantai	Diphtheria Tetanus and Acellular Pertussis Combined Vaccine (DTaP) ,Adsorbed	Ampoule/Vial	0.5, 2.0 ml
	Measles, Mumps and Rubella Combined Vaccine,Live (M/R/MR/MM)	Vial	0.5 ml
CD.JEV	Japanese Encephalitis Vaccine Live / Inactivated Vero cell	Vial	0.5 ml
	Group A Meningococcal Polysaccharide Vaccine	Ampoule	5 doses,150µg 10 doses 300µg
Menglingkang	Group A+C Meningococcal Polysaccharide Vaccine	Ampoule	100µg/4 doses 400µg
Havac	Live Attenuated Hepatitis A Vaccine	Vial	1ml
Hanpuwei	Hpemorrhagic Fever with Renal Syndrome Bivalent Purified Vaccine, Inactivated	Ampoule	1ml
	Leptospirosis Vaccine	Ampoule	5ml
Yingfuning/Shipulier	Split Influenza Virus Vaccine	Injector/Vial	0.25, 0.5ml
Huiyikang	23-Valent pneumococcal polysaccharide vaccine	Vial	0.5 ml
	Typhoid Vi Polsaccharide Vaccine	Ampoule	2 doses 1ml
Luotewei	Live Rotavirus Vaccine (Oral)	Vial	3.0 ml
Keerbei	Haemophilus Influenzae Type b Conjugate Vaccine	Vial	0.5 ml
Xinning	Rabies Vaccine for Human Use, Freeze-dried (Vero cell)	Vial	0.5 ml
Shengdousi	Freeze-dried Live Attenuated Varicella Vaccine	Vial	0.5 ml
	Yellow Fever Vaccine,Live	Ampoule	6 doses 0.3 ml
	Tick-borne Encephalitis Purified Vaccine	Ampoule	1.0 ml

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Bovine Rotavirus Vaccine		8			
Trivalent Ovine Rotavirus Vaccine					
Meningococcal A+C Conjugate Vaccine					
Meningococcal ACWY Vaccine (Polysaccharide	2)				
Hepatitis B Vaccine for Therapeutic use					
Varicella Vaccine (Beijing Strain)					
Influenza (Subunit)					
Ev71 Vaccine					
Hib Polysaccharide Conjugate Vaccine					
DTP-Hep B					
DTaP- Hib					
Measles-Mumps-Rubella, Varicella Combined Vaccine					

Adjuvant

O Combined Vaccine

O Cell line

O New Antigen

O Large-scale Production Technology

Contact Details

Name of contact person: Ms.TANG Ying; Ms.QU Liang

Address: 26th Floor, Fortune Tower A, Phone: +86 10 8466 3879

> No.4 Huixin-East Street, Chaoyang District +86 10 8466 3787

City: Beijing Fax: +86 10 8466 3322

State: Mobile: +86 135 0108 1655

+86 136 2110 6475

Country: P.R. China email: tangying@cnbg.com.cn

quliang@cnbg.com.cn

Postal code: 100029 Website: www.cnbg.com.cn



Areas of Interest for Collaboration



Name of the company : EuBiologics, Co. Ltd.

Head of Institution : Dr. Yeong-Ok Baek, CEO

Established : March 10, 2010

Country : Republic of Korea

Overview of the company

EuBiologics is a biopharmaceutical company with the goal of improving global public health through supplying safe and effective vaccines. EuBiologics focuses manufacturing and marketing of vaccines against a range of infectious diseases in pediatric, travel and endemic fields.

 $Eu Biologics\,was\,in corporated\,in\,Anyang-si,\,Gyeonggi-do,\,The\,Republic\,of\,Korea\,in\,March\,2010\,and\,in\,September\,of\,the\,same$



year, it was selected for oral cholera vaccine manufacturing technology transfer by International Vaccine Institute (IVI). Up to now it concerts all efforts for constructing a vaccine manufacturing plant and processing oral cholera vaccine licensure. Currently EuBiologics is constructing vaccine manufacturing and R&D facilities at Chuncheon Bioindustry Foundation (CBF), aiming at the completion of the construction work and the manufacturing of oral cholera vaccine clinical trial lots in early 2013.

EuBiologics will make every effort to promote welfare of all mankind and to improve public health in developing countries through the supply of the vaccines of high quality.

Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml

- a. Oral cholera vaccine
- b. Typhoid conjugate vaccine

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Oral cholera vaccine				in planning	Q1/2014

Phone: +82 31 442 6675

Areas of Interest for Collaboration

- O Development of bacterial conjugate vaccines
- Development of combo vaccines
- New adjuvant development and application to bacterial vaccines

Contact Details -

Name of contact person : Dr. Yeong-Ok Baek

Address: 1307 Gyeonggi Venture Yeon Sung University

572-5 Anyang-8-dong Manan-gu

City: Anyang-si Mobile:

State : Gyeonggi-do Fax : +82 31 442 6678

Country: Republic of Korea email : yobaek@eubiologics.com

Postal code: 430-731 Website: www.eubiologics.com





Name of the company: Finlay Institute

Head of Institution : Dra. Concepción Campa Huergo, President/General Director

Established : 1991

Country : Cuba

Overview of the company

The FINLAY INSTITUTE, founded in 1991, is a scientific organization, dedicated to research, development, production and commercialization of human vaccines, internationally recognized in this field. This institution is a world leader in the field of meningococcal vaccine and other classic vaccines included in the Extended Immunization Program (EIP). VA-MENGOC-BC®, created and produced by the Finlay Institute was the first effective vaccine against serogroup B meningococcus.



The almost 1000 members of Finlay's staff constitute the largest capital of Finlay Institute and they have been recognized for their experience in the field of vaccines, more than 60% of them have high technical and professional qualification in the field of vaccine research, development, production and quality control. Many of them have more than 20 years of experience in these specialties, which guarantees the preparation and continuity of the projects with the inclusion of new talents graduated from the universities.

The facilities engaged in the production of vaccines and active pharmaceutical ingredients were designed, built, equipped and they are operated according to cGMP. Some products manufactured in these facilities have been prequalified by WHO.

· · · · · · · · · · · · · · · · · · ·			_
Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
VA-MENGOC-BC®	Meningococcal BC vaccine	Vial	0.5/2.5/5.0 ml
vax-MEN-AC®	AC Meningococcal polysaccharide vaccine	Vial	5.0 ml
vax-SPIRAL®	Trivalent leptospirosis vaccine	Vial	0.5/5.0 ml
vax-TyVi®	Vi Polysaccharide typhoid vaccine	Vial	0.5/5.0/10.0 ml
vax-TET®	Tetanus vaccine	Vial	0.5/5.0/10.0 ml
VA-DIFTET®	Diphtheria-Tetanus vaccine for children	Vial	0.5/5.0/10.0 ml
Diphtheria-Tetanus ®	Diphtheria-Tetanus vaccine for adults	Vial	0.5/5.0/10.0 ml
DTP- vax®	Diphtheria-Tetanus-wPertussis	Vial	0.5/5.0/10.0 ml

- 1. Meningococcal ACW135 vaccine (plain)
- 2. Meningococcal ACYW135 vaccine (plain)
- 3. Meningococcal ACYW135X vaccine (plain)
- 4. Conjugated Pneumococcal vaccine
- 5. Conjugated Vi polysaccharide vaccine

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Meningococcal ACW ₁₃₅ vaccine (plain)	Q4/2010	Q1/2011	Q3/2011		Q4/2012
Meningococcal ACYW ₁₃₅ vaccine (plain)	Q2/2011	Q3/2012	Q2/2013		Q4/2013
Meningococcal ACYW ₁₃₅ X vaccine (plain)	Q1/20 <mark>12</mark>	Q3/2012	Q2/2013		Q4/2013
Conjugated Pneumococcal vaccine	Q1- <mark>3/2010</mark>	Q3/2012	Q3/2013		Q1/2014
Conjugated Vi polysaccharide vaccine	Q3/2011	Q3/2013	Q4/2013		Q1/2014

Areas of Interest for Collaboration

- O Cooperated manufacturing
- Vaccine technologycal transfer
- O Bacterial vaccines development based on outer membrane vesicles and based on capsule polysaccharides
- Application of novel adjuvants based on serogroup B Neisseria meningitidis outer membrane vesicles and proteoliposome-derived cochleate structure for vaccine development

Contact Details

Name of contact person : Dra. Concepción Campa Huergo

Address: Ave 27 No. 19805, La Coronela, La Lisa Phone: + 53 7 208 6086

+ 53 7 208 7986

City: La Habana Mobile: + 535 285 0016

State: Fax: + 53 7 208 6075

Country: Cuba email: ccampa@finlay.edu.cu

Postal code: 11600 Website: www.finlay.sld.cu





Name of the company: Green Cross Corporation

Head of Institution : II-Sup Huh

Established: 1967

Country : Republic of Korea

Overview of the company

Green Cross Corporation (GCC) is one of the leading research based biomedical and pharmaceutical companies in Korea. The corporate headquarter and R&D facilities are located in Yongin. GCC has 3 production plants. Since its establishment in 1967, GCC has pioneered in the field of biopharmaceuticals, such as vaccines, plasma-derivatives, diagnostics, recombinant proteins and therapeutic antibodies.

GCC has been well known for the R&D and commercialization of 'Hepavax B', a world's biggest selling hepatitis B vaccine,



'Hantavax', a world's first epidemic hemorrhagic fever vaccine, and 'Suduvax', a world's second chicken pox vaccine. Starting from the nation's first Albumin production in 1971, it currently manufactures more than 12 plasma fractions including immunoglobulin, anti-hemophilic factors, and anti-thrombin factor. Manufacturing over 250 diagnostic reagents in 41 items, GCC is the leader in the nation's diagnostic reagent sector. Recent innovations include 'BDD rhFVIII (Green Gene™)', a recombinant human coagulant factor VIII and a complete flu pipeline including seasonal flu vaccine (GCFLU®), H1N1 vaccine, avian flu vaccine as well as flu therapeutics, Peramivir. GCC is also pursuing opportunities in rare diseases developing therapies for Hunter syndrome (Hunterase[™]) and Fabry's disease (Gc1119).

Current Product Pipeline

the state of the s			•
Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
GC FLU Japanese Encephalitis Vaccine-GCC inj.	Influenza Vaccine (Split virion, Inactivated) Japanese Encephalitis Vaccine	Pre-filled syringe vial	0.5ml, 0.25ml 0.5ml, 1ml
Varicella Vaccine – GCC inj.	Varicella Vaccine (Live)	vial	0.7ml

More detailed information of GCC' full list of current product pipeline & future product pipeline is available at www.greencross.com.

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Avian Influenza vaccine					
Anthrax vaccine					
Adult Td vaccine					
DTaP vaccine					
Varicella Zoster vaccine					
Cell Culture Influenza vaccine					

Areas of Interest for Collaboration

- O Development and marketing partnership for novel vaccine products
- Co-development and commercialization of biologics for rare disease (Hunter syndrome, Hemophilia A)
- In-Licensing partnership for novel oncology or orphan products
- O In-Licensing partnership for novel technology

Contact Details -

Name of contact person: Sungik Park

Address: 303 Bojeong-dong, Giheung-gu, Yongin, Phone: +82 31 260 9358

City: Yongin Mobile: +82 10 5222 7203

State : Gyungi-do Fax : +82 31 260 9474

Country: Korea email: parksi@greencross.com

Postal code: 446-770 Website: www.greencross.com





Name of the company: Haffkine Bio-Pharmaceutical Corporation Limited

Head of Institution :

Established: 1974

Country : India

Overview of the company

The Haffkine Bio-Pharmaceutical Corporation was incorporated in 1974, aiming to take-up and expand the production of the erstwhile Haffkine Institute and to manufacture standard biological and non-biological products of public health importance. The Company established a subsidiary Company in 1977 viz. Haffkine Ajintha Pharmaceuticals Ltd at Jalgaon, producing tablets, capsules, powders, ointments etc.

Haffkine is engaged in the manufacture and supply of biological and non-biological products especially bacterial and viral

vaccines, antisera, toxoids, injectables and pharmaceuticals in the pursuit of its mission of "Service to Mankind in the Health Care Sector".

The Company has contributed significantly towards the universal immunization and the Polio Eradication Programme, launched by the Government of India, ensuring timely supply of Oral Polio Vaccine (OPV) in sufficient quantity.

The Company has WHO-GMP prequalification for its Oral Polio Vaccines (mOPV1, bOPV(1&2) and tOPV) for supply to UNICEF.

Haffkine timely and adequatly supplies all its products at affordable prices to all the Public Health Institutions of Government of Maharashtra.

Specific initiatives are underway for meeting the demands for the lifesaving drugs in other States, as well as in other countries. The Company plans to increase vaccine/antibodies production and diversify into the manufacture of newer vaccines of social relevance.



	· ·		
Product Name	Description	Type Vial/Ampoule	Presentation 0.5/1.0/5.0/10.0 ml
tOPV	trivalent Oral Polio Vaccine	Vial	2.2 ml (20 doses)
bOPV(1&3)	Bivalent Oral Polio Vaccine	Vial	2.2 ml (20 doses)
mOPV(1)	Monovalent Oral Polio Vaccine	Vial	2.2 ml (20 doses)
ASVS	Anti Snake Venom Serum	Vial	10 ml
AScVS	Anti Scorpion Venom Serum	Vial	10 ml
ARS	Anti Rabies Serum 300 IU/ml	Vial	5 ml
ADS	Anti Diphtheria Serum 10000IU	Vial	5 ml
ATS	Anti Tetanus Serum 1500IU/ml	Ampoule	1 ml

- 1. Tissue Culture Anti Rabies Vaccine (TCARV)
- 2. AGGS

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year

Areas of Interest for Collaboration

- O Measles
- O Hep B
- O HiB
- O IPV
- O Pneumococcal vaccine

Contact Details -

Name of contact person : Mr. Prakash R. Sabde

Address : Acharya Donde Marg, Parel Phone :+91-22-24129320-22

(Direct) +91-22-24150628

City: Mumbai Mobile: +91-9422783400

State : Maharashtra Fax : +91-22-24168578

Country: India email: md@vaccinehaffkine.com

Postal code: 400012 Website: www.vaccinehaffkine.com





Name of the company: Hualan Biological Engineering Inc.

Head of Institution

Established : 1992

Country : China

Overview of the company

Founded in 1992, Hualan Biological Engineering Inc. (Hualan Bio) is a high-tech biopharmaceutical company in China engaging in the research, development, production, and commercialization of human blood products, viral and bacterial vaccines, and recombinant biologics. Hualan Bio was the first company whose manufacturing facility for the blood products was validated and compliant with Chinese GMP in 1998. In September, 2011, the production line for the seasonal influenza vaccine at Hualan was the first validated and passed the new version of GMP in China.



Hualan Bio is the largest manufacturer and provider for both human blood products and influenza vaccines in Asia. Driven by the mission of "Dedicating for Human Healthcare", Hualan Bio has made a significant effort and successfully developed and manufactured a number of products such as human Albumin, IVIg, PCC, Fibrin Sealant, Factor VIII, Seasonal Influenza Vaccine, H1N1 Vaccine, ACYW135 Meningococcal Polysaccharide Vaccine, and Hepatitis B Vaccine, which can be classified into 3 categories, 14 products, and 50 formulations. As an example, during the breakout of the H1N1 pandemic in 2009, Hualan Bio reacted swiftly and was the first to manufacture and market the H1N1 vaccine which has a great impact on the human life and social stability.

Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
Vaccines	Recombinant Hepatitis B Vaccine (Hansenula polymorpha)		
	Meningococcal Polysaccharide Vaccine Group ACYW135		
	Inactivated Influenza Vaccine (Split virion)		
	Influenza A (H1N1) Vaccine, (Split, Inactivated)		
Blood Products	Human Albumin		
	Human Immunoglobulin		
	Human Immunoglobulin (pH4) for Intravenous Injection		
	Human Rabies Immunoglobulin		
	Human Hepatitis B Immunoglobulin		
	Human Tetanus Immunoglobulin		
	Human Prothrombin Complex		
	Human Coagulation Factor VIII		
	Human Thrombin, Lyophilized for external use		
	Surgical Lyophilized Fibrin Sealant, Human		
	Human Fibrinogen		

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
	1 1				

Areas of Interest for Collaboration

Contact Details ·

Name of contact person :

Address: Jia No. 1-1, Hualan Ave., Xinxiang, Henan Phone: +86-373-355901

City: XinXiang Mobile:

State : Hena, China Fax : +86-373-355911

Country: P. R. China email: hualan@hualanbio.com

Postal code: Website:





Name of the company: Incepta Vaccine Ltd

Head of Institution : Abdul Muktadir, Managing Director

Established : 2011

Country : Bangladesh

— Overview of the company

Incepta Vaccine Ltd is the first manufacturing company of human vaccines in Bangladesh established with the primary objective to provide preventive medicine to vast majority of population at an affordable cost. It has a vision to develop novel vaccines against diseases of the developing world.

Incepta vaccine Ltd has state-of-the-art facility fully compliant with WHO GMP requirements. It is a large vaccine facility that has the capacity to manufacture 180 million single dose vials and ampoules per year. It has 4 independent production lines

that can manufacture any dose size from 0.1ml to 15 ml simultaneously.



It has started manufacturing of vaccines from June 2011 and successfully launched three vaccines in the market; Rabies vaccine, Typhoid polysaccharide vaccine and Adsorbed Tetanus vaccine.

It has an advanced fully GMP compliant R&D facility which can independently handle several projects simultaneously involving bacteria and virus. It also has a large lab animal house covering around 24,000 square feet area which has Bio safety level 3 standard lab for testing of various vaccines which involve challenge with infectious organisms. It has well designed spacious several cold rooms to store raw materials and finished products. It has 4 cold rooms of temperature within 2-8 0C and 2 cold rooms of temperature - 20 0C to store raw materials and finished products.

Product Name	e Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
Rabix-vc	Rabies vaccine (Human) BP, 2.5 IU/1ml	Vial	1 ml
Vaxitet	et Adsorbed Tetanus vaccine BP, 40 IU/0.5 ml		0.5 ml
Vaxphoid Typhoid Polysaccharide vaccine BP, 25 µg/0.5 ml		Vial	0.5 ml

- a. Hepatitis B vaccine both for adult and pediatric
- b. Rabies Immunoglobulin
- c. Tetanus Antitoxin
- d. Meningococcal ACYW polysaccharide vaccine
- e. Pentavalent vaccine (DPT, HB, Hib)
- f. Measles vaccine
- g. Oral Polio vaccine
- h. Hib vaccine
- i. Pneumococcal 13 valent conjugate vaccine
- j. Rotavirus vaccine

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Hepatitis B vaccine both for adult and pediatric					Q4/2012
Rabies Immunoglobulin					Q4/2012
Tetanus Antitoxin					Q4/2012
Meningococcal ACYW polysaccharide vaccine					Q1/2013
Measles vaccine					Q1/2013
Pentavalent vaccine (DPT, HB, Hib)					Q1/2013
Oral Polio vaccine					Q1/2013
Hib vaccine				7 4	Q1/2013

Areas of Interest for Collaboration

Incepta Vaccine Ltd. is open for collaboration with other vaccine manufacturers and research organizations. We intend to take up projects for co-development of vaccines required for the developing nations. IVL has a large pool of highly talented scientists who can take up projects for quick development of vaccines.

Contact Details -

City: Dhaka

Name of contact person: Abdul Muktadir

Address: 40, Shahid Tajuddin Ahmed Sarani

Tejgaon I/A

Phone: +880-2-8891688-703

Mobile: +88-01711522330

State : Dhaka Fax : +880-2-8891190

Country: Bangladesh email: muk@inceptapharma.com

Postal code: 1208 Website: www.inceptapharma.com





Name of the company: Indian Immunologicals Limited

Head of Institution : Shri K.V.Balasubramaniam, Managing Director

Established: 1982

Country : India

Overview of the company

National Dairy Development Board set up Indian Immunologicals Limited in 1982. IlL's veterinary and human vaccine manufacturing facilities at Hyderabad and Ooty in India are among the largest vaccine producing plants in the world.

IIL is a major player in the human vaccine market in India, holding the fourth position and focusing on the paediatric and rabies segment with its flagship product "Abhayrab". IIL is also a major supplier of vaccines to India's large Universal Immunization Programme. IIL strongly believes that its mission of "Biotechnology in health care made affordable and accessible" can be actively pursued only with its sound

technology base in modern biotechnology.



IIL's concept of "Abhay Clinic", which provides vaccination service by qualified medical practitioners working on franchise basis, and supported by sound cold chain system, is unique. Further through "Abhay Shoppe" IIL has been able to reach out to a large number of doctors with its unique service proposition of "vaccine on call". Through its new initiative of "Abhay Mart", IIL services the vaccine needs of organized pharmacy chains and corporate hospitals.

IIL research efforts are directed at developing frontier technologies in biologicals, diagnostics and vaccines. Vaccines for tropical diseases which are of little interest to western countries, but very relevant for a country like India are a major focus of research. IIL has research collaborations with several reputed national and international institutes.

IIL exports its products to more than thirty five countries across the world with customer focus in Middle East, Asia Pacific region, Africa and CIS countries.

Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
Abhayrab	Vero cell culture Rabies vaccine	Freeze dried vial with diluent ampoule	0.5 and 1ml
Abhay M	Measles vaccine	Freeze dried vial with diluent ampoule	0.5, 2.5 and 5 ml
Elovac B	Recombinant Hepatitis B vaccine	Vial	0.5, 1, 5 and 10 ml
Abhay TAG	Diphtheria, Pertussis and Tetanus vaccine	Vial	0.5 and 5 ml
Abhay DAG	Diphtheria and Tetanus vaccine	Vial	0.5 and 5 ml
Abhay TOX	Tetanus vaccine	Vial	0.5 and 5 ml
Abhayvac 3	MMR vaccine	Freeze dried vial with diluent ampoule	0.5 and 2.5 ml
Abhay RIG	Equine Rabies immunoglobulins	Vial	5 ml

- a. Tetravalent vaccine (DPT+H)
- b. Pentavalent vaccine (DPTH+HiB)
- c. Japanese Encephalitis vaccine
- d. HiB vaccine
- e. Chikungunya vaccine
- f. Human Papilloma virus vaccine

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Tetravalent vaccine (DPT+H)				To be initiated	Q4/2013
Pentavalent vaccine (DPTH+HiB)		To be initiated			Q4/2014
HiB vaccine					Q4/2014
Japanese Encephalitis vaccine		7			Q4/2014
Chikungunya vaccine					Q4/2014
Human Papilloma virus vaccine					Q4/2015

Areas of Interest for Collaboration

- IPV vaccine technology
- Varicella vaccine technology
- Acellular Pertussis Vaccine
- o Dengue Vaccine

Contact Details -

Name of contact person: Dr. Anand Kumar, Ph.D

Address: Indian Immunologicals Limited,

Rakshapuram, Gachibowli Post

Mobile: +91 96663 39987 City: Hyderabad

State: Andhra Pradesh Fax: +91 40 2300 5958 / 2354 4007

Country: India email: anandkumar@indimmune.com

Website: www.indimmune.com Postal code: 500 032



Phone: +91 40 2300 0542 / 2300 0211



Name of the company: Institute of Vaccines & Medical Biologicals

Head of Institution : Dr. Le Van Be

Established : 1978

Country : Vietnam

Overview of the company

The Institute of Vaccines and Medical Biologicals(IVAC) was established on November 23rd, 1978 by the Ministry of Health with functions: Apply new technology for production of vaccines, sera and other medical biologicals to supply the Nationwide need, that includes the National Programme for Prevention and Treatment of infectious diseases such as the Expanded Programme on Immunization (EPI).

- 1986: Inauguration the large scale vaccines production lines for the EPI (in collaboration with the UNICEF).- 1993, 1998, 2002:



Receipt of the Third-class, Second-class, and First-class Labour medal respectively.- 1996: Receipt of VIFOTEC and KOVALEPSKAIA awards. Inauguration of ORESOL production line for the Control of Diarrheas Disease Programme (CCD).- 1999: Industrialize the antisera purification process, Holland sponsorship.- 2001: Receipt of the silver memorial award of UNICEF.- 2007: UNICEF certified IVAC as a top-quality producer for the essential vaccine. Start building up an influenza vaccine facilities at Suoi Dau Center. WHO grant.- 2008: Receipt of the Third-class Independent medal

Currently , IVAC is the largest vaccine manufacturer in Vietnam with more than 31 years of experience in production of different kinds of vaccines and sera. IVAC executive two centers: main center in Nha Trang with an area of 13.936 m²; second center in Suoi Dau, which is 22 km from Nha Trang center, has an area of 126 ha

Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
DTP	Diphtheria Tetanus and Pertussis vaccine adsorbed, 20 dose	Vial	10ml
π	Tetanus Toxoid adsorbed, 1 & 20 doses	Vial & ampoule	0.5mal & 10ml
Td	Tetanus & Diphtheria vaccine, 1 & 10 doses	Vial & ampoule	0.5ml & 5ml
BCG	Live freeze - dried BCG vaccine, 10 doses	amber ampoule	1ml
SAT	Tetanus Antitoxin, 1500IU and 1000 IU	ampoule	1ml
SAR	Equine Rabies Immune Globulin,1000IU	Vial	3ml
SAV - Naja	Antivenin against Naja kaouthia, 1000 LD ₅₀	Vial	7ml
SAV - Tri	Antivenin against T.albolabris, 1000 LD ₅₀	Vial	7ml
SAD	Diphtheria Antitoxin, 2500IU	Vial	5ml
Superferon	Interferonα- 2b, 3MIU and 1.5MIU	Vial	1ml
lm.BCG	Immune BCG (Freeze - Dried, used for cancer treatment), 37.5mg	amber ampoule	37.5ml

1.Inactivated influenza vaccine (H5N1, H1N1, Seasonal Flu)

2.DPT-Heb-Hib

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
H5N1	Q2/2011	Q1/2012	Q3/2012		Q2/2013
H1N1	Q2/2011	Q1/2012	Q3/2012		Q2/2013
Seasonal Flu	Q4/2011	Q3/2012	Q1/2013		Q4/2013
DPT-Heb-Hib	Q4/20 <mark>11</mark>	Q3/2012	Q1/2013		Q4/2013

Areas of Interest for Collaboration

- Adjuvant
- O Compo vaccine
- Immune technique for production and QC
- O Quality Management
- O Business Trading Marketing

Contact Details -

Name of contact person : Dr. Le Kim Hoa

Address: 9 Pasteur Street Phone: +84 58 3 822 408

City: Nha Trang Mobile: +84 90 3 504 198

State: Khanh Hoa province Fax: +84 58 3 823 815

Country: Vietnam email: lekimhoa@dng.vnn.vn

Postal code: 84 Website: www.ivac.com.vn





Name of the company: Instituto Butantan

Head of Institution : Jorge Kalil

Established : 1901 Country : Brazil

Overview of the company

Instituto Butantan is a Public research center associated with the Secretary of Health of the State of São Paulo dedicated to Biomedical Research with the mission to investigate, develop and provide to the Brazilian population essential products for Public Health. It has a centenary tradition in the investigation on snakes and poisonous animals, and is currently the leading national producer of vaccines and anti-venom sera. Fundação Butantan is a Private foundation created to support the activities of the Institute, allowing technological development, the operation of industrial production units and



commercialization of the products. The Ministry of Health is a partner of the ensemble and its major client.

Butantan provides the Ministry of Health with ~200 million doses of vaccines/year, such as DTP, Hepatitis B, Influenza and Rabies and ~1 million doses of hyperimmune sera. It has a surplus production capacity which can be made internationally available. Butantan constitutes a unique association where basic research, technological development and production allows Brazil - within the National Programs of Public Health - to provide state of art immunobiological products in the frontier of knowledge, in a rapidly expanding program of self-sufficiency.

Product Name	Description		Presentation 0.5/ 1.0 / 5.0 / 10.0 ml			
DTP vaccine	Diphtheria, tetanus and whole cell pertussis vaccine	Vial	5.0 ml			
dT vaccine	Adult diphtheria and tetanus vaccine	Vial	5.0 ml			
HepB vaccine	Recombinant Hepatitis B vaccine	Vial	5.0 ml			
Rabies vaccine	Rabies vaccine produced in Vero cell culture for human use	Vial	5.0 ml			
Anti-Diphtheria Hyperimmune sera	Anti-diphtheria toxoid hyperimmune sera	Vial	10.0 ml			
Anti-Tetanus Hyperimmune sera	Anti-tetanus toxoid hyperimmune sera	Vial	5.0 ml			
Anti-Venoms Hyperimmune sera	Bothropic (5 valent), Bothropic-Crotalic, Botropic-Lachetic, Crotalic (2 valent), Lachetic, Elapidic, Escorpionic, Aracnidic (Loxocelles and Phoneutria),Botulinic AB or E, Rabic	Vial	5,10, 20 ml			
Influenza vaccine	Influenza vaccine seasonal and H1N1 produced in eggs	Vial	5.0 ml			

- a. DTP_{low} vaccine
- b. Influenza/adjuvant
- c. Rotavirus vaccine
- d. Dengue vaccine
- e. Lung surfactant
- f. Human IgG
- g. Recombinant OncoBCG

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
DTP low			XIIIIIIII		03/2013
Influenza/adjuvant			XIIIIIIII		03/2014
Rotavirus vaccine					03/2014
Dengue vaccine			XIIIIIII		03/2015

Areas of Interest for Collaboration

- O Adjuvants
- O Fermentation
- O Conjugation

Contact Details

Name of contact person : Jorge Kalil

Address: Av. Vital Brasil 1500 Phone: +55 11 2627-9502/3

City: São Paulo Fax: +55 11 2627-9505

State : SP email : jkalil@butantan.org.br

Country: Brazil Website: www.butantan.gov.br

Postal code: 05503-900





Name of the company: Laboratorios de Biológicos y Reactivos de México,

S.A. de C.V. (BIRMEX)

Head of Institution : Dr. Samuel Ponce de León Rosales

Established : In Mexico City since 1999. Birmex as an enterprise

started in 1999 but, as part of the Ministry of Health, has more than 100 years producing vaccines.

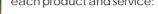
Country : Mexico

Overview of the company

Birmex is a government-owned company that produces, imports and commercializes vaccines, antisera and biological reagents.

Our personnel possess a vast expertise in biologics production which combines with a stringent quality control of the production procedures. This expertise results in the successful updating of facilities, production procedures, and programs aimed to meet Good Manufacturing Practices as certified by the National Regulatory Agency.

Over the years Birmex has evolved into a reliable guarantee of experience and know-how for its customers, incorporating into each product and service:



- The confidence of high quality
- The pledge of an end-to-end service with full tracking and control over shipments at all times, whether by land or air
- The security of on-time distribution to any point in the country - this because Birmex is the only laboratory that delivers to all Mexico's 32 states
- The innovation, competitiveness, honesty and integrity in each process focused on offering solutions that meet the customer's needs
- And finally, the assurance of being with a laboratory whose experience, market knowledge and degree of specialization today make it the leading vaccine manufacturer in Mexico and one of the three principal vaccine-manufacturing countries in Latin America.



Product Name	duct Name Description		Presentation 0.5/ 1.0 / 5.0 / 10.0 ml			
tOPV	Trivalent Sabin Oral Polio Vaccine	Dropper	2.0 ml			
Td vaccine	Tetanus and Diphteria Toxins	Vial	5.0 ml			
Snake Antiserum	Vial with freeze dried to be reconstituted with 10 mL of Water for Injection as diluent. This serum is made with venoms from the species Crotalus basiliscus and Bothrops asper, and it has also cross reaction against venoms of the species Akgistrodon and Sistrurus.	Vial	10.0 ml			
Scorpion Antiserum	Vial with freeze dried to be reconstituted with 5 mL of Water for Injection as diluent. This serum is made with venoms from the species Centruroides	Vial	5.0 ml			

- 1. Monovalent oral polio vaccine (types 1, 2 and 3).
- 2.Influenza vaccine in cell culture systems.
- 3.Influenza vaccine in embrionated chicken eggs.

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Monovalent oral polio vaccine (types 1,2 & 3)					4 / 2013
Influenza vaccine in cell culture systems					3 / 2018
Influenza vaccine in embrionated chicken eggs					2 / 2014

Areas of Interest for Collaboration

- Cell cuture-based vaccines
- Scale-up processes
- O Technology transference
- O Pilot plant design
- From bench to patient (the vaccine development production proccess)

Contact Details -

Name of contact person : Sonia Villaseñor Bustamante, International Business Manager

Address: Amores No. 1240, Col. Del Valle Phone: +52 55 54-22-28-73

City: Mexico City Fax: +52 55 54-22-28-81

State: D.F. email: svillasenorb@birmex.gob.mx

Country: Mexico Website: www.birmex.gob.mx

Postal code: 03100





Name of the company: LG Life Sciences Ltd.

Head of Institution : II Jae JUNG

Established : 1947

Country : Republic of Korea

Overview of the company

LG Life Sciences(LGLS) has developed and commercialized an array of pharmaceuticals for human and animal applications over the years. Especially for vaccines, LGLS successfully developed hepatitis B vaccine (EUVAX B™ Inj.) which has been exported to more than 80 countries through UN-sponsored programs and represented the major portion of overseas sales. Further to hepatitis B vaccine, LGLS successfully developed tetravalent DTP-based combined vaccines. These include DTaP-HepB(Eutravac™ Inj.) and DTwP-HepB(Euforvac™ Inj.). Both of them were approved by Korean FDA in year 2008 and showed



superior efficacy and safety. LGLS also developed a Hib vaccine(Euhib™ Inj.), as a component of pentavalent vaccine by reconstitution with DTwP-HepB-Hib(Euforvac-Hib™ Inj.). In addition, LGLS is developing a fully-liquid pentavalent vaccine(DTwP-HepB-Hib), based on the accumulated technology and knowhow, for UN vaccine market. And year 2011, LGLS is selected by WHO as one of tech transfer recipient of sabin IPV. Based on this new technology, LGLS will continue to develop hexavalent and further combined vaccines. Through the long development history on vaccines LGLS accumulated a lot of experiences on vaccines and came to have very strong capability on vaccine development area. In the future, LGLS will remain a leader in life sciences and biotechnology-value added areas that are knowledge intensive.

Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml			
Euvax B™Inj.	Recombinant Hepatitis B vaccine	Vial Liquid	0.5/1.0/5.0ml			
Euforvac™Inj.	Adsorbed diphtheria, tetanus, whole cell pertussis & hepatitis B combined vaccine	Vial Liquid	0.5/1.0/5.0ml			
Eutravac [™] lnj.	Adsorbed diphtheria, tetanus, aceulluar pertussis & hepatitis B combined vaccine	Vial Liquid	0.5ml			
Euhib™lnj.	Haemophilus influenzae type b vaccine	Vial Lyophilized	0.5/1.0ml			
Euforvac-Hib™Inj.	Adsorbed diphtheria, tetanus, whole cell pertussis, hepatitis B and Haemophilus influenzae type b combined vaccine	Vial Lyophilized	0.5/1.0ml			

^{*} More detailed information of LGLS' full list of current product pipeline & future product pipeline is available at www.lgls.com.

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
hGH					
EPO (Espogen®)					
SR-hGH(adult GHD)					
SR-hGH(Pediatric GHD)					
MAb(LBEC0101)					
MAb(LBIM0101)					
MAb(LBAL)					
Euforvac-Hib [™] Inj.					
DTwP-HepB-Hib (Fully liquid)					
sIPV(sabin strain)					
DTP-HepB-Hib-IPV(fully liquid)	On going				
Cell culture influenza vaccine					
HA IDF 1(Skin Rejuvenation)					
HA IDF 2(Skin Rejuvenation)					
LBSA0103(Osteo Arthritis)					
Anti-Adhesion Barrier(Post Operation Adhe	esio)				

DS: Discovery, PC: Preclinical Studies, MKT: Market, GHD: Growth Hormone Deficiency, TS: Turner's Syndrom, CRI: Chronic Renal Insufficiency, SGA: Small for Gestational Age, SR: Sustained Released, CRF: Chronic Renal Failure, IVF: In vitro Fertilization, CML: Chronic Myeloid Leukemia, HA: Hyaluronic Acid, IDF: Injectable Dermal Filler

Areas of Interest for Collaboration

- O Development and marketing partnership for novel vaccine products
- Marketing alliance for biologics, SR-hGH, EPO, rFSH, etc.
- Global marketing partnership or distributionship for HA based products
- O Global marketing partnership or distributionship for Fative®

Contact Details -

Name of contact person: Vaccine Biz.

Address: LG Gwanghwamun Bldg. Phone: +82 0 2 6924 3147

92, Sinmunno 2-ga, Jongno-gu

City: Seoul Mobile:

Fax: +82 0 2 6924 3059 State:

Country: Republic of Korea email: kimhs@lgls.com

Postal code: 110-062 Website: www.lgls.com





Name of the company: Liaoning Cheng Da Biotechnology Co., Ltd (CDBIO)

Head of Institution : Ms. Zhang XiaoHua, General Manager

Established : 2002 Country : China

Overview of the company

CDBIO is an integrated biotechnology company engaged in R&D, manufacturing, distribution and sales of vaccine products. In 2002, the company introduced world's leading technology platform---"bioreactor and micro-carrier cell culture technology"---, from which the company has developed rabies vaccine and Japanese Encephalitis vaccine.

Until now, our products have been distributed in almost all over the China as well as more than 15 countries in international



markets. According to the statistic data, totally more than 100 million doses of rabies vaccine for human use have been used for rabies prophylaxis during the last 7 years and there is no failure case reported after finishing the whole vaccination schedule. The inactivated Japanese Encephalitis vaccine (Vero cell) has also been launched since 2008 and now it has become a better choice for JE prevention. In 2012, the company built a new manufacturing facility following to the Current GMP regulations and it will come into use in 2013.

Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
Rabies vaccine for human use	 Perfusion Culture by Bioreactor and micro-carrier system Chromatographically Purified High Immunogenicity (>4.5IU/dose before lot release) High safety Preservative free, antibiotics free 	Vial	Liquid solution: 0.5ml/dose Lyophilized powder 0.5ml/dose after reconstitution
Rabies vaccine for veterinary use	 Perfusion Culture by Bioreactor and micro-carrier system High Immunogenicity (2.0IU/dose) High safety Antibiotics free 	Vial	1ml/vial for one dose 5ml/vial for 5 doses
Inactivated Japanese Encephalitis Vaccine for human use	 Perfusion Culture by Bioreactor and micro-carrier system Chromatographically Purified Preservative free, antibiotics free High safety High Immunogenicity 	Vial	Liquid solution: 0.5ml/dose Lyophilized powder 0.5ml/dose after reconstitution

- a. Hemorrhagic Fever with Renal Syndrome Bivalent Vaccine
- b. Combined bacterial vaccine

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Hemorrhagic Fever with Renal Syndrome Bivalent Vaccine					2014
Combined bacterial vaccine					2017

Areas of Interest for Collaboration

- We are seeking partnerships with large pharmaceutical company who are interested in developing biotech and vaccine products
- O In-licensing Opportunity in China

Contact Details -

City: Shenyang

Name of contact person : Mr. Wu zhe

Address: No. 1, Xinfang Street, Hunnan New District Phone: +86-24-83787033

Mobile: +86-13109875430

Fax: +86-24-83787033

State : Liaoning Province email : zhe66@hotmail.com

Country: China Website: www.cdbio.cn

Postal code: 110179





Name of the company: National Administration of Laboratories &

Institutes of Health ANLIS "Dr. Carlos G. Malbrán"

Head of Institution : Dr. Gustavo Ríos

Established : 1996

Country : Argentina

Overview of the company

The National Administration of Laboratories and Institutes of Health ANLIS "Dr. Carlos G. Malbrán" agency dependent of The Secretary of Policy, Regulation and Institutes of the Ministry of Health of Argentine Nation nucleates eleven institutes and centers located in different places in our country (all of them of recognized performance in their areas of competence).

Its fundamental function understands in science and technical policy associated with various substantive aspects of actions in public health. The Institutional Plan recognizes 6 strategic areas:



- Research and Technological Development in Health.
- 2. Health Surveillance and outbreak control.
- 3. Prevention and Control Disease Programs.
- 4. Production and Supply of Health Strategic Inputs.
- 5. Education and Training of Health Human Resources.
- 6. Information and Communication in Health.

Planned activities in the Production and Supply of Strategic Inputs Area will focus to achieve more equitable access (regarding availability and prices) to technologies and essential medical supplies, with guaranteed quality, safety, effectiveness and cost effectiveness and to promote reasonable and effective use according to their costs.

The global products portfolio of interest includes: viral and bacterial vaccines, immunotherapics (antidotes and antitoxins sera), diagnosis kits and reagents, inputs for reference and proficiency tests sera panels and reference biological standards, biopharmaceuticals and strategic medicines and laboratory animals.

Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
Candid # 1	Virus Junin live attenuated vaccine against Argentine Hemorrhagic Fever	10 doses Vial	Lyophilized
Viper venom antiserum, Bothrop	os bivalent	vial	10.0 ml
Viper venom antiserum, Bothrop	os tetravalent	vial	10.0 ml
Viper venom antiserum, Crotalu	us durissus terrificus	vial	10.0 ml
Viper venom antiserum, Micruru	us pyrrhocryptus	vial	5.0 ml
Spider venom antiserum, Loxoso	celes SP	vial	5.0 ml
Spider venom antiserum, Latroc	vial	2.0 ml	
Scorpion venom antiserum, Tityus trivitattus			2.0 ml
Rabies vaccine, FP, human use		vial	2.0 ml
Rabies vaccine, FP, veterinary u	ise	vial (multidose)	50.0 ml
Tuberculin purified protein deriv	vate, human use	vial (multidose)	3.0 ml
BCG for immunotherapy	BCG for immunotherapy		
Serotyping antisera (Enterobac	vial	Miscellaneous volumes	
Tetanus toxoid - API	N/A	N/A	
Diphteria toxoid - API	N/A	N/A	
Pertussis (cellular component) -	API	N/A	N/A

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Yellow Fever Vaccine					Implementation of a Quality System training to staff ANLIS in Argentina November 2011
dT vaccine - Diphteria and Tetanus vaccine					Adaptation, renovation and design of the productive areas of the components or API's (used to produce DTP and dT) and acquisition of necessary equipment
DTP vaccine – Diphteria, Tetanus and Pertussis vaccine					and instrumentation Execution of the work of the filling and packaging plant and submission a file that includes all equipment and instruments needed in the plant. 2011
Pentavalent vaccine DTP-HB/Hib		7			In technology transference management

Kits for diagnosis use: Rotavirus, *Neisseria meningitidis*, *Streptococcus pneumonie*, Toxoplasmosis, Chagas, Leptospirosis, Brucellosis, etc.

Areas of Interest for Collaboration

- Production technologies
- O Quality Control
- O Quality Assurance
- O Management
- O Good Manufacturing Practices
- O Clinical trials
- O Ethical issues

- O Vaccine development
- Vaccine patents politics
- O Regulatory issues

Contact Details -

Name of contact person : Flavia M. Consalvo

Address: Av. Vélez Sarsfield Nº 563 Phone: +54 011 4303 1804 ext. 159

City: Ciudad Autónoma de Buenos Aires Mobile: +54 011 5594-5332

State: Ciudad Autónoma de Buenos Aires Fax: +54 011 4303 1804

Country: Argentina email: fconsalvo@anlis.gov.ar

Postal code: C1282AFF Website: www.anlis.gov.ar





Name of the company: Panacea Biotec Limited

Head of Institution : Dr. Rajesh Jain, Ph.D., Joint Managing Director

Established : 1984 Country : India

Overview of the company

Panacea Biotec is India's leading research-based health management company that combines ground-breaking science with steadfast commitment to meet the unmet needs of patients all over the world at affordable prices. Since its inception in 1984, the Company has grown in India and expanded internationally with the Company's products reaching out to more that 75 countries. Today the Company is the second largest vaccine manufacturer and is amonst top ten biotechnology companies in India. The Company has total manpower of around 3300 spread all over India and abroad.

The company has pioneered in research & development, manufacturing and marketing of pharmaceuticals,



biopharmaceuticals, vaccines and natural products. Research and Development is one of the core strengths of Panacea Biotec. With its four highly sophisticated ultra-modern R&D centres manned with around 300 qualified and experienced scientists, the Company has built a strong R&D base over the last decade to support its business segments.

The Company's state-of-the-art manufacturing facilities for Vaccines, pharmaceuticals and biopharmaceuticals comply with US-FDA, UK-MHRA, SA-MCC and WHO-cGMP standards, which echo the Company's vision to be the leading health management company.

The pharmacueitcal product portfolio of the Company includes highly innovative prescription products in important therapeutic areas such as pain management, diabetes management, renal-disease management, anti-osteoporosis, anti-tubercular, gastro-intestinal care products.

	1		
Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
Easyfive	DTwP-HepB-Hib, pentavalent vaccine	Vial	0.5 ml
Ecovac 4	DTwP-HepB, tetravalent vaccine	Vial	0.5ml
Easyfour	DTwP-Hib, tetravalent vaccine	Vial &Pre-filled Syringe (PFS)	0.5ml
Enivac HB	Recombinant Hepatitis B Vaccine	Vial	0.5ml, 1.0ml, 5.0ml & 10.0ml
NovoHIB	Haemophilus type b Conjugate Vaccine IP	Vial &Pre-filled Syringe (PFS)	0.5ml
Polprotec	Inactivated polio vaccine (Salk)	Vial & Pre-filled Syringe (PFS)	0.5ml & 5.0ml
Poliomyelitis Vaccine, Live (Oral) IP	Polio Virus Type1, Type2 & Type3	Vial	2.0ml (20 paed. doses)
Bivalent Poliomyelitis Vaccine Type1 & Type3, Live (Oral) (bOPV)	Polio Virus Type1 & Type3	Vial	2.0ml (20 paed. doses)
Monovalent Oral Poliomyelitis Vaccine Type1 (mOPV1)	Polio Virus Type1	Vial	2.0ml (20 paed. doses)
Monovalent Oral Poliomyelitis Vaccine Type3 (mOPV3)	Polio Virus Type3	Vial	2.0ml (20 paed. doses)

- a. DTP based Combination Vaccines (DTP-HepB-Hib-IPV, DTP-Hib-IPV)
- b. Sabin Inactivated Polio Vaccine
- c. Cell culture based viral vaccines (dengue, japanese encephalities virus)
- d. Egg culture based viral vaccines (seasonal flu, yellow fever)
- e. Recombinant viral vaccines (universal flu, respiratory syncytial virus)
- f. Bacterial polysaccharide vaccine (Pneumococcal, meningococcal)
- g. Bacterial protein vaccine (acellular pertussis)

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
NuCoVac (10-valent Pneumococcal Vaccin	ne)			Q2/2013	2014/2015

Areas of Interest for Collaboration

The Company has important business relationships with various research institutes, academic universities and commercial corporations including, National Institute of Immunology, India, Biotech consortium India Ltd, National Institute of Health (NIH), US, BioFarma, Indonesia, National Research Development Corporation (NRDC) India, The National Institute for Public Health and the Environment (RIVM), The Netherlands.

Areas of interest for collaboration includes;

- O Strategic partnerships for new technologies in the field of cell culture, egg based, recombinant viral vaccines and biotherapeutics.
- Supply of bulk antigens/bulk vaccines/finished product (in/out)

Contact Details -

Name of contact person: Dr. Rajesh Jain, Ph.D., Joint Managing Director

Address: B-1 Extn./A-27, Mohan Co-op. Industrial Estate, Phone: +91-11-4167 8000

> Mathura Road, New Delhi - 110 044, INDIA +91-11-2694 1639

City: New Delhi Mobile: +91-9811010367

State: New Delhi Fax: +91-11-2694 0621 / +91-11-2694 0199

Country: India email: rajeshjain@panaceabiotec.com

Postal code: 110 044 Website: www.panaceabiotec.com





Name of the company: Pasteur Institute of Iran, Production and Research Complex

Head of Institution : Dr. Mohammad AZIZI

Established : March 1987

Country : Iran

Overview of the company

Located in the heart of Tehran, Pasteur Institute of Iran (PII) has been providing health care services and related products to the public since 1920. The initial goal of PII establishment was to recognize and combat domestic infectious diseases. PII now is the home of different departments and research centers such as Bacteriology, Biotechnology, Genetics, Parasitology & Mycology, Clinics, and

To meet increasing domestic demand PII manufacturing part moved to a new place in outskirt of Tehran in 1988 and assigned as "Production and Research Complex (PRC)". In the new place PII was successfully able to develop its production to a variety of

products. Currently, PRC productions fall into these categories:

- Vaccines: such as Hepatitis B, BCG, and anti-Rabies (for veterinary use)
- Recombinant Protein Preparations: such as Erythropoietin, Interferon alfa 2b, and Streptokinase
- Parenteral fluids
- Therapeutics such as intravesical BCG
- Diagnostic materials used in Medical Laboratories

Equipped with state of the art machineries PRC now is one of the leading companies in manufacturing biopharmaceuticals in the country and the region.

PRC also benefits from quality assurance and quality control departments with close cooperation of the National Regulatory Authorities (NRA).

PRC vision is to employ innovative technologies in order to expand its GMP-oriented products to meet both domestic demands and looking to foreign market.

In order to commercialize products outside the country, PRC recently applied for pre-qualification status through WHO for its vaccines.



<u>'</u>			
Product Name Desc	cription	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
Hepatitis B Vaccine (Rec.)	Liquid	Vial	5.0 (10 doses)
BCG Vaccine	Lyophilized	Vial	2.0 (20 doses)
Rabies Vaccine (for animal use)	Liquid	Vial	1.0 (1 dose)
BCG Intravesical (Immune)	Liquid	Vial	120mg/3ml
Erythropoietin (Rec.)	Liquid	Vial	1.0 (2000 I.U.)
Parenteral Solutions	liquid	Vial	50
Diagnostic Kits	Antigens & Antiserums Culture	Vial	
Experimental Animals	Mice- Rabbits- Guinea Pigs- Hamster		

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Interferon Alfa 2b	*				
Streptokinase (Rec.)		S.			
Rabies vaccine (for Human use)					
MMR Vaccine					
Combination Vaccines					
Anti Venoms (Snakes & Scorpions)					
Immunological Diagnostic Kits					
Parenteral Amino Acids Solutions					
PEG Interferon					
Influenza Vaccine (Human)					
Menangities Vaccine					
Pneumococcal Vaccine					

Areas of Interest for Collaboration

- Recombinant Biopharmaceuticals
- Vaccine -Cell Culture Based
- · Co Operated Manufacturing
- Vaccine Technology Transfer
- Quality Control, Quality Assurance

Contact Details -

Name of contact person: Dr. Alireza GHOLAMI

Address: Km 25 Tehran-Karaj HWY., Karaj, Iran Phone: +98 26 36104895

Mobile: +98 9123486080 City: Karaj

State: Alborz Province Fax: +98 26 36102900

Country: Iran email: agholami@pasteur.ac.ir

Website: http://www.pasteur.ac.ir Postal code: 3159915111





Name of the company: Queen Saovabha Memorial Institute, The Thai Red Cross Society

Head of Institution : Prof. Dr. Visith Sitprija, Director

Established : 1922

Country : Thailand

Overview of the company

The Queen Saovabha Memorial Institute (QSMI), founded in 1922, has its mission in producing vaccines and snake antivenoms and conducting research on snakes, snake venoms, rabies and related topics.

It established a snake farm in 1923 and a horse farm in 1956. QSMI has been manufacturing snake antivenoms since 1923 and BCG vaccine since 1953. Work on snakes, snake antivenoms, rabies and equine rabies immunoglobulin has gained international reputation for many decades. The horse farm has approximately 400 horses. The Institute is recognized by WHO as WHO Collaborating Centres in both rabies and snake work. The activities of Queen Saovabha Memorial Institute cover 3 main areas: service, research and production as follows.



- I. Service
- Treatment of animal bites and vaccination against rabies
- 2. Animal clinic and Rabies diagnosis
- 3. Travelers immunization clinic
- 4. Other immunization
- 5. Snake farm for public
- Joint collaborative projects in clinical and laboratory diagnosis of human and animals suspect of being rabid, route of rabies vaccine dministration (with ministry of public health, livestock department, WHO and US communicable disease center).
- II. Research and Development
- 1 Research for improvement of product and diagnosis
- 2 Biomedical and clinical research in areas of rabies, snakes, snake venoms and horses
- 3 Collaboration and joint research projects between QSMI and other educational and research institute
- 4 Future plan: New tuberculosis vaccine
- III. Production

Biological products as in headline No.6

Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
BCG Vaccine	lyophilized product of 10 doses per vial	vial	0.5 ml
Tuberculin test solution	injection liquid of 5 doses per vial	vial	0.5 ml
Equine rabies immunoglobulins	injection liquid of 1,000 IU per vial	vial	5.0 ml
Antivenoms for poisonous snake bite -King Cobra antivenin (Ophiophagus Hannah) -Cobra antivenin (Naja Kaouthia) -Banded Krait antivenin (Bungarus fasciatus) -Malayan Pit Viper antivenin (Calloselasma rhodostoma) -Russell's Viper antivenin (Daboia russelli siamensis) - Green Pit Viper antivenin (Trimeresurus albolabris) -Malayan Krait antivenin (Bungarus candidus) -Neuro polyvalent antivenin (Naja kaouthia, Ophiophagus hannah, Bangarus fasciatus, Bangarus candidus) -Haemato polyvalent antivenin (Calloselasma rhodostoma, Trimeresurus albolabris, Daboia russelli siamensis)	lyophilized product in 20 ml. vial with solvent of Water for injection 10 ml.	vial	10.0 ml

(bulk vaccine for formulation and filling): Estimate launch in year 2012

- a. Rabies vaccines: lyophilized product of 0.5 ml per vial
- b. JE vaccines: lyophilized product of 0.5 ml per vial
- c. Td vaccines: injection in suspension liquid of 2 ml in vial
- d. DTP-Hep -vaccines: injection liquid of 1 ml per vial

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Rabies vaccines					Q1/2013
JE vaccines					Q4/2013
Td vaccines					Q1/2014
DTP - Hep-vaccines					Q2/2014

Areas of Interest for Collaboration

• Research of new TB vaccine

Contact Details -

Name of contact person: Prof. Sumana Khomvilai

Address: Phone: +662 2520131

City: Bangkok Mobile: +6681 3759375

Fax: +662 2540212 State:

Country: Thailand email: Prof. Sumana Khomvilai: sumanaredcross@gmail.com

Postal code: 10330 Website: www.saovabha.co.th





Name of the company: Razi Vaccine & Serum Research Institute

Head of Institution : Dr. Hadi Famil Ghadakchi

Established : 1925

Country : IR of Iran

Overview of the company

Razi Vaccine and Serum Research Institute is known as one of the oldest and most reputed scientific centers in the Middle East. This institute began its activities in the year 1925 with producing vaccine against Rinderpest, which at the time had caused large casualties in the cattle population of the country. At present Razi institute is producing more than 60 biological products including human and veterinary vaccines, sera, etc.

Razi institute is governed by a Board of Trustees. The local costumers of the institute products are the Ministry of Health and the Veterinary Organization of the country. The institute is headquartered in the city of Karaj and has six branches in the cities



Mashahad, Ahwaz, Shiraz, Marand, Kerman and Arak. These branches are mainly involved in the production of poultry and other veterinary vaccines.

The Institute is considered a center of research, training and technical assistance for vaccine production and is ready for providing its services and fulfilling the vaccine needs of other developing and neighboring countries.

The objectives are:

- Research & Production of Medical Vaccines and Antisera
- Research & Diagnosis of Veterinary and Poultry Diseases
- Research & Production of Veterinary and Poultry Vaccines
- Research and Diagnosis of Zoonotic Diseases
- ▶ Biotechnology Research
- ▶ Education & Training

Product Name	Description	Туре	Presentation
Troddot Hamo	Bosonphon	Vial/Ampoule	0.5/ 1.0 / 5.0 / 10.0 ml
Trivalent DTP, dT, Td	Diphteria-Tetanus-Pertussis Vaccines	Vial	14 doses/7 ml
Measles	Live Attenuated vaccine (Lyo.)	Vial	10 doses/5 ml
Mumps, Rubella	Live Attenuated vaccines (Lyo.)	Vial	1 dose
Polio (type 1,2, and3)	Live Attenuated vaccine	Flakon	15 doses/1.5 ml
MMR , MR, MM	Live Attenuated vaccines (Lyo.)	Vial	10 doses/5 ml
Polyvalent Snake Antivenom	Antivenom	Ampoule	10 , 5
Polyvalent Scorpion Antivenom	Antivenom	Ampoule	5
Anti-Tetanus Serum	Anti Toxin	Ampoule	2
Anti-Diphtheria Serum	Anti Toxin	Vial	5
Anthrax	Live vaccine	Bottle	100
Blackleg (Cattle)	Inactivated vaccine	Bottle	250
Polyvalent Enterotoxaemia (Sheep & Goat)	Inactivated vaccine	Bottle	250
Brucella Melitansis Strain Rev. 1	Live vaccine (Lyo.)	Vial	100
Brucella Abortus Strain IRIBA	Live vaccine (Lyo.))	Vial	20
Agalactia & Pasterulosis (Cattle & Buffalo)	Inactivated vaccines	Bottle	100
Tetanus (Horse)	vaccine	Vial	20
Rinderpest, Sheep Pox, Goat pox	Live vaccines (Lyo.)	Vial	100
Foot and Mouth Disease (FMD)	Inactivated vaccine	Bottle	250
Bovine Theileriosis	Attenuated vaccine	Vial	12
Fowl Cholera	Inactivated vaccine	Bottle	100
Fowl Pox	Live vaccine (Lyo.)	Vial	1000 , 2000
Infectious Laryngotracheitis	Live vaccine (Lyo.)	Vial	1000 , 2000
Fowl Infectious Bronchitis H-120 & H-52	Live vaccines (Lyo.)	Vial	1000 , 2000
Newcastle La Sota , Newcastle B1	Live vaccines (Lyo.)	Vial	1000 , 2000,4000
Inactivated Influenza (oil-emulsion) H9N2	Inactivated vaccine	Bottle	250
Inactivated Newcastle (oil-emulsion) V4	Inactivated vaccine	Bottle	250
Combined oil-emulsion H9N2 & V4	Inactivated vaccine	Bottle	250
Combined IB (H-120) / ND (B1)	Live vaccine	Vial	2000

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Peste des Petits Ruminants (PPR)					
Combined Live IB (H-120) / ND (La Sota)					
Infectious Bursal Disease (IBD)		4			
Human Influenza Vaccine					
RS12					
Hib vaccine					
Tetravalent DTP-Hib					
Pentavalent DTP-Hib-HepB					
IPV					

Areas of Interest for Collaboration

- Training in the Fields of Production and QC Tests
- Production of New Recombinant Vaccines (Human, Poultry and Veterinary)

Contact Details -

Name of contact person : Dr. Hadi Ghadakchi

Address: Razi Vaccine & Serum Research Institute

Karaj, P.O. Box 31975/148, IR, Iran

Mobile: City: Karaj

State: Tehran Fax: +98 26 1455 4658

Country: IR of Iran email: int@rvsri.ir

Website: www.rvsri.ir Postal code: 3197619751



Phone: +98 26 1455 4658



Name of the company: SERUM INSTITUTE OF INDIA LTD.,

Head of Institution : DR. CYRUS S. POONAWALLA, Chairman & Managing Director

Established : 1966 Country : INDIA

Overview of the company

Serum Institute of India Ltd. (SII) founded in 1966 by a true visionary Dr. Cyrus Poonawalla, is now India's # 1 Biotech Company and the World's 5th largest vaccine manufacturer (by volume) with an installed annual production capacity of over 1 billion doses of various vaccines. It is also one of the largest suppliers of WHO prequalified vaccines to U.N. Agencies catering to over 140 countries; and also recognized as a reliable largest source of high quality & affordable vaccines and biologicals. It is estimated that 1 out of every 2 children immunized globally get at least one vaccine produced by SII. SII is also now the proud owner of Bilthoven Biologicals, The Netherlands.



SII products are also registered in several countries including Switzerland. This impact has been large enough to make global agencies such as WHO, PATH, NIH, NVI/RIVM, CBER/USFDA & BMGF to work with SII to develop newer vaccines. The production facilities of SII are the best in terms of equipment and human resources; essential to ensure high quality of vaccines. The manufacturing facilities conform to WHO cGMP requirements and till date its 16 vaccines are prequalified by WHO/Geneva. Its facilities are also approved by USFDA for pharma products.

Product Name	e Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
TT	Tetanus Vaccine	Ampoule	Single dose (0.5 ml)
DT	Diphtheria and Tetanus Vaccine (Paediatrics)	Vial	10 doses (5 ml)
Td	Diphtheria and Tetanus Vaccine for Adults & Adolescents	Vial	20 doses (10 ml)
DTP	Diphtheria-Tetanus-Pertussis Vaccine	Ampoule	1 & 2 doses (0.5/1 ml)
		Vial	10 & 20 doses (5/10 ml)
BCG	BCG Vaccine	Vial	5ml, 10ml/ 10, 20 doses
Measles	Measles Vaccine Live (Lyo.)	Vial	1, 2, 5 & 10 doses
Rubella	Rubella Vaccine Live (Lyo.)		(0.5ml per dose)
MR	Measles and Rubella Vaccine Live (Lyo.)		
MMR	Measles, Mumps and Rubella Vaccine Live (Lyo.)		
Rabies	Rabies Vaccine	Vial/Ampoule	1 ml / 1 dose
IPV	Inactivated Poliomyelitis Vaccine	Prefilled Syringe	0.5ml/dose
Nasovac	Influenza Vaccine, Live Attenuated (Freeze-dried), Pandemic (H1N1)	Vial/Ampoule	1 & 2 doses (0.5 ml per dose)
Enzavac	Influenza Vaccine, Inactivated (FD), Pandemic (H1N1)	Vial	1 dose (0.5ml per dose)
Нер В	Recombinant Hepatitis B Vaccine	Vial/Ampoule	0.5ml & 1ml
		Vial	5 & 10 ml
Qadruple	DTP and Hepatitis B Vaccine (Adsorbed)	Ampoule/Vial	0.5ml & 1 ml / 5 ml
Quadravalent	DTP + Hib Vaccine (Lyo. & Liquid)	Vial	0.5ml, 1 & 5 ml
Pentavalent	DTP Hepatitis B + Hib Vaccine (Lyo. & Liquid)	Vial	0.5ml, 1, 5 & 10 ml
Hib	Haemophilus type b Conjugate Vaccine (Lyo.)	Vial	1 dose
MenAfriVac	Meningococcal A Conjugate Vaccine (Lyo.)	Vial	10 doses
ATS	Tetanus Antitoxin	Ampoule/Vial	1 ml / 5 ml
ADS	Diphtheria Antitoxin	Vial	10 ml
ASVS	Anti-Snake Venom Serum (Lyo.) Asia & Central Africa	Vial	10 ml
ARS	Anti-Rabies Serum	Vial	5 ml

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
DTaP vaccine		Planned	Planned	Planned	2014
10-valent Pneumococcal Vaccine		Planned	Planned	Planned	2015
Rabies Monoclonal Antibody			*	Planned	2013
Measles Vaccine (Dry Powder)			Planned	Planned	2015
Rabies vaccine (Verorab)			*	#	2013
Aerosol Measles vaccine			*		2013
Seasonal influenza (Live attenuated)					2012
Rotavirus Vaccine (Lyophilized)				Planned	2015

^{*} Studies are planned as Phase II/III # Regulatory approvals are also considered.

Newer Vaccines development

O Biosimilars

Monoclonal antibodies

Areas of Interest for Collaboration

Contact Details -

Name of contact person: DR. SURESH S. JADHAV, Executive Director

Off. Soli Poonawalla Road, Hadapsar

Address: 212/2, Hadapsar, Phone: +91 20 2660 2378

+91 20 2660 2379

Mobile: +91 98230 22248 City: Pune

State: Maharashtra Fax: +91 20 2699 3945

Country: India email: ssj@seruminstitute.com

Website: www.seruminstitute.com Postal code: 411 028





Name of the company: Sinergium Biotech S.A.

Head of Institution : Abel Di Gilio (President)

Established : 2009

Country : Argentina

Overview of the company

Created in 2009, Sinergium Biotech S.A's objective is to provide Argentina with a Center of Excellence in research and production of human vaccines, manufactured with the highest quality standards. With a private investment of close to 80 million dollars, Sinergium Biotech is building a state-of-the art 15,000 square meters production facility and will generate 320 employments enabling the training of highly-specialized workforce. Argentina will rely on national production capacities of human vaccines to supply its own market, even in case of pandemics, and to generate exports to the region. Sinergium



Biotech represents a great opportunity for international vaccine producers to develop their production capacity in Argentina and therefore set foot and expand their participation in the South-American region markets. Thanks to the strategic initiative of Sinergium Biotech, Pfizer and the Argentine Ministry of Health, babies and toddler are being vaccinated today against pneumococcus infections, the principal cause of pneumonia and meningitis in children, as part of the national immunization program. With a projected capacity of 20 million doses of trivalent vaccine per year, Sinergium Biotech will place Argentina in the short list of countries relying on their own technology to produce flu vaccine and thus to face possible pandemics.

Product Name	e Description	Type Vial/Ampoule	Presentation 0.5/1.0 / 5.0 / 10.0 ml
VIRAFLÚ	Anti – influenza Vaccine (inactivated surface antigens)	Prefilled Syringe	0.5 ml
VIRAFLÚ PEDIÁTRICA	Anti - influenza Vaccine (inactivated surface antigens)	Prefilled Syringe	0.25 ml

- 1. FLUXVIR, anti-influenza vaccine (adjuvant MF59)
- 2. PREVENAR 13

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year

Areas of Interest for Collaboration

O ⋅Contract Manufacturing

Contact Details -

Name of contact person: Augusto PICH OTERO

Phone: +54 11 3220 7300 Address: Ruta Panamericana Km 38,7

(colectora oeste, ramal Campana)

Mobile: +54 9 11 3236 3615 City: Garín

State: Provincia de Buenos Aires Fax: +54 11 3220 7301

Country: Argentina email: augusto.pichotero@sinergiumbiotech.com

Website: www.sinergiumbiotech.com Postal code: B1619IEA





Name of the company: Sinovac Biotech Ltd.

Head of Institution : Weidong Yin

Established : 2001 Country : China

Overview of the company

Sinovac Biotech Ltd. is a profitable biopharmaceutical company headquartered in Beijing, China. The Company focuses on the research, development, manufacture and commercialization of vaccines that protect against human infectious diseases including hepatitis A, seasonal influenza, H5N1 (bird flu) pandemic influenza and H1N1 influenza. Sinovac received approval in 2009 for its H1N1 influenza vaccine, PANFLU.1 and has commenced fulfilling orders from the Chinese Central Government pursuit to the government stockpilling program. Sinovac was the first company worldwide to receive approval for H1N1 influenza vaccine.



Sinovac has a robust pipeline of new vaccine products under development. The Company is currently developing vaccines for Enterovirus 71 (EV 71), Pneumococcal Conjugate Vaccine, Hib, and Meningitis. Its wholly owned subsidiary, Tangshan Yian, is conducting field trials for an independently developed inactivated animal rabies vaccine.

Sinovac is open and flexible to discuss any possible collaborative opportunity of international business and has established a clear path to partnering. We are seeking the partners who share the same value as ours

Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
Healive®	Inactivated Hepatitis A Vaccine	Vial	0.5, 1.0 ml
Anflu	Split Influenza Vaccine	Vial	0.25, 0.5 ml
Bilive	Hepatitis A and B Combined Vaccine	Vial	0.5, 1.0 ml
PANFLU.1	H1N1 Influenza Vaccine (Split virion)	Ampoule	0.5, 1.0 ml
H5N1	H5N1 Influenza Vaccine (Split virion)	Ampoule	0.5, 1.0 ml
H5N1	H5N1 Influenza Vaccine (Whole virion)	Ampoule	0.5, 1.0 ml
Mumps	Live attenuated vaccine	Vial	0.5ml

- 1. EV71 Vaccine
- 2. Human Rabies Vaccine
- 3. Pneumococcal Conjugate Vaccine
- 4. Pneumococcal Polysaccharide Vaccine
- 5. HIB Vaccine

- 6. DTaP Vaccine
- 7. HepB Vaccine
- 8. Rotavirus Vaccine
- 9. Ca16 Vaccine
- 10. Varicella Vaccine

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
EV71 Vaccine					Q2/2014
Human Rabies Vaccine					Q2/2016
Pneumococcal Conjugate Vaccine					Q2/2016
Pneumococcal Polysaccharide Vaccir	ne /////////	7			2016
HIB Vaccine					Q2/2017
DTaP Vaccine					Q2/2017
HepB Vaccine					Q2/2017
Rotavirus Vaccine					Q3/2017
CA16 Vaccine					Q3/2017
Varicella Vaccine					Q2/2016

Oversea distribution

R&D cooperation

O International business

O FDA registration for vaccines

Areas of Interest for Collaboration

- Adjuvant technology
- Micro-carrier technology
- Novel vaccine technology

Contact Details

Name of contact person: Ms. Helen Yang

Address :: 39 Shangdixi Road, Haidian District Phone : +86 10 82799871

City: Beiling Mobile:

State: Beijing Fax: +86 10 62963661

Country: China email: info@sinovac.com

Postal code: 100085 Website: www.sinovac.com





Name of the company: SK Chemicals (Life Science Biz division)

Head of Institution : Chang Geun Kim (CEO and Vice Chairman)

In Serk Lee (Head of Life Science Business)

Established : 1969

Country : Republic of Korea

Overview of the company

SK Chemicals is a member of SK Group, the third largest company group in Korea. Since founded in 1969, it has become one of top pharmaceutical companies in Korea with its strong marketing operation in cardiovascular, neurology and vaccine/blood preparation fields.

In 2002, SK Chemicals acquired a blood preparation and vaccine specialized pharmaceutical company Dong-Shin and became the No. 1 vaccine company in

Korea.



In addition to three manufacturing plants, including a plant for vaccines and blood products, SK Chemicals started building a GMP compliant new vaccine manufacturing facility with single-use and eco-friendly concept in Andong, Korea in 2011 to produce vaccines developed by SK under the joint partnership with the Korean Government. The new facility with 150 million dose capacity will begin production of various vaccine products including cell-culture based vaccines in late 2013.

In terms of the development of vaccine products, several our vaccine candidates entered into clinical trials in Korea this year.

Product Name	Description	Type Vial/Ampoule	Presentation 0.5/1.0/5.0/10.0 ml
SK Td vaccine	Adsorbed tetanus-diphtheria combined toxoid for adult	Prefilled syringe	0.5ml
SK DPT-3 vaccine	Diphtheria, Tetanus and Pertussis vaccine	Prefilled syringe	0.5ml
SK influenza 10 vaccine	Egg based seasonal flu vaccine	Prefilled syringe	0.25/0.5ml
SK influenza IX vaccine	Egg based seasonal flu vaccine	Prefilled syringe	0.25/0.5ml
SK influenza	Egg based seasonal flu vaccine	Prefilled syringe	0.25/0.5ml
Hepamun prefilled	Recombinant DNA Hepatitis B vaccine	Prefilled syringe	0.5/1ml
FirstHib	Haemophilus influenzae type b conjugated vaccine	Prefilled syringe	0.5ml

- a. Conjugate vaccines
- b. Recombinant vaccines
- c. Cell culture based vaccine

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Cell culture based influenza vaccine*					2014/2015
Varicella vaccine					2015
Conjugate vaccine					2016
Others					2016

^{*}SK's cell culture influenza vaccine is prepared in SK's own cell culture platform. It is highly notable that SK's technology is capable of producing high-yields of influenza virus compared to egg based production.

Areas of Interest for Collaboration

- Co-development of new vaccines
- Global marketing partnership/distributorship for cell culture influenza vaccines and varicella vaccines
- O Licensing-in / out of vaccine products & platform technology

Contact Details -

Name of contact person : Dr. Hun Kim

Address: 686 Sampyeong-dong, Bundang-gu Phone: +82 2 - 2008 - 2008 (Global Business Development Team)

Mobile: City: Seongnamsi

Fax: +82 2-2008-2959

State: Gyeonggi-do email: lifescience_global@sk.com

Country: Republic of Korea Website: www.skchemicals.com/eng/main/main.asp

Postal code: 463-400





Name of the company: The Biovac Institute

Head of Institution : Dr Morena Makhoana

Established : 2003

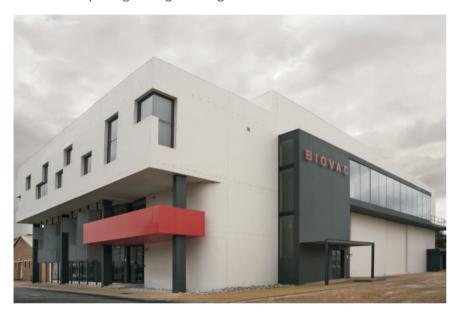
Country : South Africa

Overview of the company

The Biovac Institute "Biovac" is a Public Private Partnership (PPP) between a private consortium and the South African government. It was formed after the realization by the South African government of the need to have human vaccine manufacturing capability in the sub-saharan Africa.

Since its formation in 2003, The Biovac Institute has been importing vaccines to fulfill all of South Africa's EPI vaccine needs as well as exporting to neighbouring African countries, and at the same time building physical and human capital capability

at its manufacturing hub in Cape Town, South Africa.



The physical infrastructure comprises QC laboratories, R&D laboratories, Packaging, Clinical Trial Material manufacture, formulation and bulk filling (in the final phase of being built). The key human capital capabilities include expertise in the areas of conjugation, fermentation, quality control and analytical method development.

It is Biovac's vision to be a Centre of Excellence rooted in Africa for the development and manufacture of affordable vaccines for Africa and the developing world's needs.

Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
	Hepatitis B	Vial	0.5ml

- 1. Hib (bulk)
- 2. Liquid pentavalent
- 3. Td
- 4. TT

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Hib					
Pentavalent					2014
Td					2014
Π					<mark>2</mark> 013

Areas of Interest for Collaboration

- Sourcing relevant finished products for local market
- Exporting bulk Hib
- Opportunities around conjugation technologies/products

Contact Details -

Name of contact person : Morena Makhoana

Address: 15 Alexandra Road, Pinelands Phone: +27 21 514 5000

City: Cape Town Mobile: +27 82 331 0431

State: Western Cape Fax: + 27 86 518 1127

Country: South Africa email: morena@biovacinstitute.co.za

Postal code: 1403 Website: www.biovac.co.za





Name of the company: The Center for Genetic Engineering and

Biotechnology

Head of Institution : Dr. Luis Herrera Martínez. Director General

Established : 1986

Country : Cuba

Overview of the company

The Center for Genetic Engineering and Biotechnology (CIGB) since 1986 has become one of the most important research-production facilities at the "Western Havana Bio-Cluster", equipped and staffed to close the cycle from biological research, which means from biotech product and process development, to production, registering, and commercialization. The CIGB has 20 years of experience in the production of recombinant biopharmaceutical molecules such as interferon, Hepatitis B vaccine, Synthetic Haemophilus influenzae type b vaccine, Tetra- and Penta-valent Combined vaccines, streptokinase, epidermal growth factor formulated in different forms, monoclonal antibodies and other products, which are already producing a positive impact on public health in Cuba and a positive cash flow from sales to more than 50 countries.

 $The CIGB with about \, 550 \, scientists \, and \, engineers \, work \, in \, more \, than \, 50 \, research \, and \, development \, projects, \, which involve \, new \, vaccines, \, which i$



therapeutic recombinant proteins and peptides, therapeutic monoclonal antibody and diagnostic systems. CIGB project/product portfolio is covered by more than 70 patent applications and manufacture of those arriving into production stage take place under the most stringent GMP conditions leading into international recognition by different authorities.

CIGB is open to implement a coordinated and targeted alliance-building policy, in order to speed up projects, to complement our capacities with those of our new partners, and to open new channels to the most sophisticated markets.

A component of that policy is to anticipate negotiation time and to start alliance building earlier in the product's life cycle. Thus, immersed in this movement, you will find in this document general data about the institution and summaries of eleven projects, which we considered most attractive for negotiation with your organization, However, while the mail proposed focus is set within these propositions, discussions can be opened around other projects of mutual interest as well.

Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
Heberbiovac HB	HB Vaccine	Vial (liquid)	Pediatric and adult doses, single and multidose
Quimi- Hib	Hib Vaccine	Vial (liquid)	Pediatric, single dose
Trivac HB	Tetravalent Vaccine (DPT-HB)	Vial (liquid)	Pediatric and adult doses, single and multidose
Heberpenta L	Pentavalent Vaccine (DPT-HB-Hib). Fully liquid in one vial	Vial (liquid)	Pentavalent Vaccine (DPT-HB+Hib)
Heberon	Interferon's	Vial (liquid& freeze dried)	Several presentations
Hebekinasa	Streptokinase	Vial (freeze dried)	Several presentations
Heberprot-P	Heberprot-P® is a novel and unique medicine indicated for diabetic foot ulcer treatment (DFU). This innovative product contains epithermal growth factor (EGF) as active pharmaceutical ingredient (APhI) to be applied by intra-lesional infiltration directly in the wound site	Vial (freeze dried)	25 and 75 mcg/vial

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Heberprot - P					
HBV vaccine (NASVAC)					
HCV vaccine (CIGB - 230)					
CIGB - 500 (Cytoprotective Agent)					
CEA recombinant antiboby fragment (CIGB - M3)					
HPV vaccine					
Prostate cancer vaccine					
CIGB - 370 (Anti- tumor agent)		7			
CIGB - 166 (anti- VEGF antibody)					
CIGB _ 247 (VEGF vaccine)					
CIGB - 552 (anti -tumor peptide)					
Dengue vaccine					
Dengue anti-viral molecules					
CIGB - 845 (neure-protective agent)					
Peptide for Rheumatoid Arthritis					

Areas of Interest for Collaboration

- O Business Strategy for International Partnership in R&D CIGB's Projects
- O CIGB is open to implement a coordinated and targeted alliance-building policy, in order to speed up projects, to complement our capacities with those of our new partners, and to open new channels to the most sophisticated markets

Contact Details -

Name of contact person: Dr. Luis Herrera Martinez

Address: ave 31. entre 158 y 190. Cubanacan Playa Phone: +53 7 271 6013

+53 7 271 6022

Mobile: City: Havana

State: Havana City Fax: +53 7 33 6008

Country: Cuba email: luis.herrera@cigb.edu.cu

Website: www.cigb.edu.cu Postal code: PO Box 6162





Name of the company : The Company for Vaccine and Biological $\,$

Production No.1 (VABIOTECH)

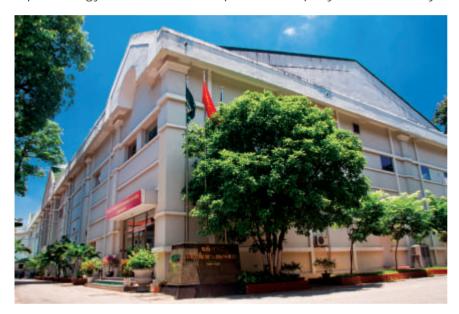
Head of Institution : Prof. Nguyen Thu Van Ph.D., D.M.Sci

Established : March 2000

Country : Vietnam

Overview of the company

The Company for Vaccine and Biological Production No.1 was established under the decision No. 650/2000/QD-BYT dated March 2nd, 2000 by the Minister of Health, as a State-Owned Company belongs to The National Institute of Hygiene and Epidemiology, Hanoi-Vietnam. Since May 25th, 2007 the Company separated from the National Institute of Hygiene and Epidemiology and became an independent company under the Ministry of Health of Vietnam.



The functions of the Company are manufacturing and trading vaccines and biological products for human use, analyzing samples of new developing vaccines and biological products (including diagnostic kits and prophylaxis treatment products, pharmaceuticals; Healthcare services). Annually these vaccines are provided to the National Expanded Program on Immunization and domestic demand.

Product Name	Description	Type Vial/Ampoule	Presentation 0.5/1.0/5.0/10.0 ml
r-HBvax	Hepatitis B Vaccine (Yeast derived, Recombinant)	Vial	0.5ml, 1.0 ml
Gen-HBvax	Hepatitis B Vaccine (Yeast derived, Recombinant)	Via	0.5 ml, 1.0 ml
JEVAX	Japanese Encephalitis Vaccine (Mouse brain derived, Nakayama strain)	Vial	1.0ml, 5.0 ml
JEBEVAX	Japanese Encephalitis Vaccine (Mouse brain derived, Beijing-1 strain)	Vial	1.0ml, 5.0 ml
ORCVAX	Oral Cholera Vaccine (Bivalent, Killed Whole Cell, Formulated based on OD)	Vial	1.5ml, 7.5 ml
mORCVAX	Oral Cholera Vaccine (Bivalent, Killed Whole Cell, Formulated based on LPS content)	Vial	1.0ml, 5.0 ml
HAVAX	Hepatitis A Vaccine (Inactivated, Purified, Primary monkey kidney cell based)	Vial	1.0 ml

- 1. Hib Conjugate Vaccine
- 2. Rabies Vaccine (Vero cell based)
- 3. Japanese Encephalitis Vaccine (Vero cell based)
- 4. Hepatitis A Vaccine (MRC-5 cell based)
- 5. Influenza A/H5N1 Vaccine (Cell culture based)
- 6. Pandemic influenza A/H1N1Vaccine (Cell culture based) 13. EV71 Vaccine
- 7. Seasonal Influenza Vaccine (Cell culture based)
- Varicella Vaccine
- Rubella Vaccine
- 10. Dengue Vaccine
- 11. Mumps Vaccine
- 12. Vi Typhoid Conjugate Vaccine
- 14. Pentavalent combination Vaccine (DTwP- Hep B- Hib)

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Hib Conjugate Vaccine					2014
Rabies Vaccine (Vero cell based)					2014
Japanese Encephalitis Vaccine (Vero cell based)					2014
Hepatitis A Vaccine (MRC-5 cell based)					2014
Influenza A/H5N1 Vaccine (Cell culture based)					2013
Pandemic influenza A/H1N1Vaccine (Cell culture based)					2013
Seasonal Influenza Vaccine (Cell culture based)					2014
Varicella Vaccine					2015
Rubella Vaccine					2015
Dengue Vaccine					2016
Mumps Vaccine					2015
Vi Typhoid Conjugate Vaccine					2015
EV71 Vaccine					2015
Pentavalent combination Vaccine (DTwP- Hep B- Hib)					2015

Areas of Interest for Collaboration

- Technology transfer
- O Filling and packaging
- O Bio-Pharmaceutical products

Contact Details

Name of contact person: Prof. Nguyen Thu Van, Ph.D., D.M.Sci.

Address: 1, Yersin Street Phone: +84 4 38211500

City: Hanoi Mobile:

State: Fax: +84 4 39717711

Country: Vietnam email: thuvan@vabiotech.com.vn

Postal code: 10000 Website: http://www.vabiotech.com.vn



Name of the company: The Government Pharmaceutical Organization

Head of Institution : Dr. Witit Artavatkun MD. Managing Director

Established : 5th August 1966

Country : Thailand

Overview of the company

The Government Pharmaceutical Organization (GPO) of Thailand is a state enterprise under Ministry of Public Health. It was founded in the year 1966 by merging of a pharmaceutical manufacturing plant(founded in 1939) and Pharmaceutical Department(founded in 1901) according to the GPO Act of 1966. The annual revenue of fiscal year 2012(Oct2011-Sep2012) is approx. 400 mUSD. The total pharmaceutical product items are more than 300. The total staff is about 2,700.

The main responsibility of GPO is to produce medicines and pharmaceutical products to serve the national health security system and other medicine supplies.

Biological Product Department of GPO is, one of the Production Clusters, responsible for production of vaccines and antisera. At



present, staff under this department is about 180. Our current products are JE (MB) vaccine, antiserum of tetanus and snake venoms. The coming vaccines of dT, TT, DTP DTP-HB and influenza vaccines are under development. The development of influenza vaccine has been supported by WHO and Thai Government including domestic and international networks. The H1N1 2009 PLAIV was registered for pandemic purpose in July 2011. The new strain H5N2 PLAIV is now completed clinical study Phase I and ongoing to Phase II study. The seasonal IIV is being scaled up from pilot scale to industrial scale with technical assistance from KAKETSUKEN, Japan.

The industrial influenza vaccine plant in Saraburi province (120 Km away from Bangkok) is under construction with the support from the government and will be completed by the end of 2013.

Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
Japanese Encephalitis vaccine	Inactivated Japanese Encephalitis vaccine, Beijing strain	Vial	0.5 ml and 5.0 ml
TAT	Tetanus Antitoxin	Ampoule / Vial	1ml / 2ml
Antisnake venom	Anti Cobra, Anti Malayan Pit Viper, Anti Russeli's Viper	Ampoule	10ml

- 1. Future products in pipeline:
- 2. Inactivated Influenza vaccine
- 3. Live attenuated Influenza vaccine
- 4. DTP-Hepatitis B vaccine
- 5. dT vaccine
- 6. Tetanus vaccine
- 7. Cell based JE

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year

Areas of Interest for Collaboration

- Development of other vaccines and biopharmaceutical products
- Technology transfer
- Research Collaboration

Contact Details

Name of contact person: Mr. Sit Thirapakpoomanunt

Address: 75/1 Rama 6 Road, Ratchthewi, Phone: +662 203 8500

Bangkok 10400

City: Bangkok Mobile: +668 5155 3304

State: Fax: +662 644 8851

Country: THAILAND email: sit.thira@gpo.or.th

Postal code: Website: www.gpo.or.th





Name of the company: VACSERA, holding company for biological products & vaccines

Head of Institution : Dr. Hamdallah Zedan

Established : 2003 Country : Egypt

Overview of the company

VACSERA is a state owned company established in 1881by Health Dept. producing small-pox vaccine followed by Rabies vaccine in 1907, still the only company producing vaccines in Egypt. In 2002 VACSERA was announced as a holding company for biological products & vaccines having 3 affiliated companies in 3 main locations.

- 1. EGYVAC: The Egyptian Company for Production of Vaccines, Sera and Drugs.
- 2. EGYBLOOD: The Egyptian Company for Blood Transfusion Services.



3. EGYVET: The Egyptian Company for Drugs & Veterinary Vaccines.

VACSERA mission is to contribute in securing the needs of the country from vaccines (human & veterinary), biotechnological products, blood & blood components, and some laboratory diagnostics, through local manufacturing or procurement to help in the company growth, implementing continuous improvement to all activities, resources and assets of the company.

Egyvac is the sole Producer of vaccines & sera in Egypt & the only supplier of vaccines & sera to the ministries of Health, Defense & interior . The product portfolio includes a wide variety of products that play a major role in the preventive & therapeutic fields. It has two WHO labs & WHO polio regional referenced lab for the EMRO region & WHO National Influenza Center (NIC).

Product Name Descriptio	n Type Vial/Ampoule	Prese 0.5/ 1.0 / 5.	ntation 0 / 10.0 ml
Toxovac	Adsorbed Tetanus Toxoid vaccine	Vial / amp	0,5 ml &5 ml
DT vaccine (for pediatric use)	Diphtheria &Tetanus Toxoids	Vial / amp	0.5 ml & 5 ml
Td Vaccine (for adult use)	Diphtheria & Tetanus Toxoids	Vial / amp	0.5 ml & 5 ml
DPT vaccine	Diphtheria & tetanus toxoids & inactivated Bordetella pertussis	Vial / amp	0.5 ml & 5 ml
Cholera vaccine	Formaldehyde Killed Vibrio cholera	Vial / amp	1ml & 10 ml
Typhoid vaccine	Formaldehyde Killed Salmonella typhi	Vial / amp	1ml & 10 ml
Mixvac (Typhoid / tetanus vaccine)	Tetanus toxoid & killed Salmonella typhi	Vial / amp	1ml & 10 ml
Meningococcal AC Vaccine	Purified polysaccharide From Niesseria meningitides of types A&C	Vial	10 ml & 25 ml
Anti- scorpion serum(liquid/lyophilized)	Polyvalent anti- scorpion serum	Amp	1 ml
Snake venom antiserum polyvalent (liquid/ lyophilized)	Polyvalent anti- snake serum	Vial	10 ml
Polyvalent anti – viper venom serum (liquid)	Polyvalent anti – viper serum	Vial	5 ml
Seroviper T (liquid & lyophilized)	Polyvalent anti – viper serum for species present in European environment	Vial	5 ml
Polyvalent anti – viper venom serum (lyophilized)	Polyvalent anti – viper serum	Vial	5 ml
Tetanus antitoxin 30000 IU (therapeutic)	Tetanus antitoxin 30000 IU	Vial	10 ml
Tetanus antitoxin 1500 IU (prophylactic)	Tetanus antitoxin 1500 IU	Amp	1 ml
Tetan 3000 IU (prophylactic)	Tetanus antitoxin 3000 IU	Amp	1 ml
Diphtheria antitoxin	Diphtheria antitoxin 10000 IU	Vial	10 ml

- Oral Polio Vaccine
- Seasonal Influenza vaccine
- AC meningococcal conjugate vaccine
- AC meningococcal polysaccharide vaccine
- Acellular Pertussis vaccine
- Rabies vaccine
- Combined tetra & penta-vaccines (DTP- Hep B & DTP- Hep B- Hib)
- Haemophilus Influenza vaccine

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Oral Polio Vaccine	Pilot Plant scale	Jan 2013			Q2 / 2014
Seasonal Influenza Vaccine	Lab scale				Q4 / 2015
AC meningococcal conjugate vaccine	Lab scale	1			2016
AC meningococcal polysaccharide vaccine	Preclinical				2016
Acellular Pertussis vaccine	Lab scale				2016
Rabies vaccine	Technology Transfer				

Phone: +202 37611111

Areas of Interest for Collaboration

Contact Details -

Name of contact person: Dr. Basma Ismael

Address: 51, Wezaret El-Zeraa st.

Agouza, Giza

City: Mobile:

State: Fax: +202 37609177

Country: Egypt email: ceo@vacsera.com

Postal code: 12311 Website: www.vacsera.com





Name of the company: Walvax Biotechnology Co., Ltd

Head of Institution : Li Yunchun

Established : 2001 Country : China

Overview of the company

Walvax Biotechnology Co., Ltd. (refer as Walvax) is a high-tech enterprise engaged in providing safe and effective biological products for domestic and foreign markets. Walvax has an advanced Research and Development Center and pilot base in Kunming, and established two modern vaccine production bases located in Yunnan Yuxi and Jiangsu Taizhou. Its marketing network covers more than 2000 counties of 30 provinces in China. In June, 2012, Walvax exported the first batch of Hib vaccine to Philippines. This is a key step of Walvax in going global.



November 12, 2010, Walvax listed on Shenzhen Stock Exchange. Walvax became the first listed Yunnan enterprise on China Growth Enterprise Market. The operating income of 2011 reached 473.81 million RMB, while the net profit was 207.53 million RMB.

Walvax has successfully developed 17 vaccines, in which Haemophilus Influenzae Type b Conjugate Vaccine and Group A, C Meningococcal Polysaccharide Conjugate Vaccine Freeze Dried have been already marketed, and achieved good sales performance in domestic market. Besides, Walvax has completed six clinical trials. The production workshops' construction of Group A, C, W₁₃₅ and Y Meningococcal Polysaccharide Vaccine and Group A, C Meningococcal Polysaccharide Vaccine has been completed and Walvax has obtained the Drug Production Licenses.

Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
Haemophilus Influenzae Type b Conjugate Vaccine	The product officially launched into market in September 2007. The vaccine is a preparation of <i>Haemophilus influenzae</i> type b 58534 strain capsular polysaccharide antigen obtained through fermentation and purification, activation derivatization and covalently bound to tetanus toxoid protein. This vaccine is indicated for infants from the age of 2 months to 5 years to induce the active immunization against infectious diseases caused by <i>Haemophilus influenzae</i> type b, such as meningitis, pneumonia, septicemia, cellulitis, arthritis, epiglottitis etc.	Vial	0.5 ml
Group A, C Meningococca I Polysacchride Conjugate Vaccine, Freeze Dried	The product was on market officially in September 2009. The vaccine is a lyophilized vaccine of Meningococcal 29201 strain capsular polysaccharide antigen bound to tetanus toxoid protein. The meningococcal capsular polysaccharide is obtained from Neisseria meningitide serogroup A and C. The group A and C conjugates are mixed at certain proportion and lyophilized with the proper stabilizer. The vaccine is indicated for infants from the age of 3 months to 5 years preventing diseases caused by Meningococcal Group A or C, such as cerebrospinal meningitis and septicemia.	Vial	0.5 ml
Haemophilus Influenzae Type b Conjugate Vaccine	In April 2010, Walvax launched a prefilled syringe dosage form of Haemophilus Influenzae Type b Conjugate Vaccine (Hib). Compared to similar products of semi-prefilled syringe dosage form, our prefilled syringe Hib vaccine need just two-step inject operation: Remove the needle shield, and inject. Since no re-dissolution and no need to pierce the vial cap, it can effectively reduce the abundant procedures and waste items in the course of injection. It also can effectively avoid contamination and keep the tip intact. So it can reduce the pain of the vaccinated children.	Pre-filled syringe	0.5 ml

- a. Group A, C Meningococcal Polysaccharide Vaccine, Freeze Dried
- b. Group A, C, W135 and Y Meningococcal Polysaccharide Vaccine, Freeze Dried
- Diphtheria, Tetanus and acellular Pertussis Combined vaccine, Adsorbed
- d. Inactivated split Influenza vaccine (0.5ml)
- e. Inactivated split Influenza vaccine (0.25ml)
- Tetanus toxoid vaccine, adsorbed

- Recombined (Hansenula polymorpha) Hepatitis B vaccine (10ug)
- Recombined (Hansenula polymorpha) Hepatitis B vaccine (20ug)
- DTaP+Hib combined vaccine
- CpG adjuvant Hep B vaccine
- 13 valent pneumococcal conjugate vaccine
- 23 valent pneumococcal polysaccharide vaccine
- m. Typhoid Vi polysaccharide vaccine

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Group A, C Meningococcal Polysaccharide Vaccine, Freeze Dried					
Group A, C, W135 and Y Meningococcal Polysaccharide Vaccine, Freeze Dried					
Diphtheria, Tetanus and acellular Pertussis Combined vaccine, Adsorbed					
Inactivated split Influenza vaccine (0.5ml)					
Inactivated split Influenza vaccine (0.25ml)					
Tetanus toxoid vaccine, adsorbed					
Recombined (Hansenula polymorpha) Hepatitis B vaccine	e (10ug)				
Recombined (Hansenula polymorpha) Hepatitis B vaccine	e (20ug)				
DTaP+Hib combined vaccine					
CpG adjuvant Hep B vaccine					
13 valent pneumococcal conjugate vaccine					
23 valent pneumococcal polysaccharide vaccine					
Typhoid Vi polysaccharide vaccine				1	

Areas of Interest for Collaboration

- Asia for vaccine export (especially Southeast Asia)
- All over the world for all kinds of cooperation

Contact Details -

Name of contact person: Gong Su

Address: 4/F Bldg. A3, Phase 2, Yunnan Universities

Science & Technology Park, North Area,

High & New Tech Development Zone

City: Kunming

State: Yunnan

Country: China

Postal code: 650106

Phone: +86-871-8312779

Mobile: +86-15969446240

Fax: +86-871-8312779

email: IR@walvax.com.cn

Website: http://www.walvax.com





Name of the company: Xiamen Innovax Biotech Co., Ltd.

Head of Institution : Mr. Steven Gao, General Manger

Established : 2005

Country : China

Overview of the company

Xiamen Innovax Biotech CO., LTD. (INNOVAX) is a leading company in the field of developing, manufacturing and marketing innovative vaccines with its headquarter and manufacture base in Xiamen, China.

In collaboration with the National Institute of Diagnostics and Vaccine Development in Infectious Diseases (NIDVD), INNOVAX has established a core-platform using DNA recombinant technology to express protein in E. coli for vaccine



production. Based on this platform, Hecolin® (Hepatitis E Vaccine) which is going to launch in October 2012, a Cervical Cancer Vaccine which is in the clinical trial phase and a Genital Warts Vaccine which has been submitted for registration have been developed. Besides, there are two products in the pre-clinical development stage: a new HPV vaccine and a pediatric HEV vaccine.

Product Name	Description	Type Vial/Ampoule	Presentation 0.5/ 1.0 / 5.0 / 10.0 ml
Hecolin®	Hepatitis E Vaccine (E.coli)	Pre-filled Syringe	0.5 ml

- a. Cervical Vaccine (HPV16/18)
- b. Condyloma Acuminate Vaccine (HPV6/11)
- c. HEV vaccine (pediatric)

Product Name	Pre Clinical	Phase 1	Clinical Phase 2	Phase 3	Expected launch date Quarter / Year
Cervical Vaccine (HPV16/18)				2012-2014	2017
Condyloma Acuminate Vaccine (HPV6/11)				2013-2015	2018
HEV vaccine (pediatric)		N/A	N/A	2012-2014	2015

Areas of Interest for Collaboration

- O Licensing / Technology transfer
- Overseas distribution
- Product co-development

Contact Details -

Name of contact person: Wendy Huang

Address: No.130 Xinyuan Road, Haicang district Phone: +86-592-653 6555

City: Xiamen Mobile: +86-136 6609 6039

State: Fujian Province Fax: +86-592-653 6567

Country: China email: int@innovax.cn

Postal code: 361022 Website: www.innovax.cn



Xiamen Innovax Biotech Co. Ltd.

Lis	t of Member Organizations
-Co	Beijing Minhai Biotechnology Co., Ltd
B	Beijing Tiantan Biological Products Co., Ltd.
-G	Bharat Biotech International Limited
-Ca	Biological E. Limited
-G	Bio Farma
	Bio-Manguinhos - Institute of Technology on Immunobiologicals
-Co	BioNet-Asia Co., Ltd.
-Co	Cadila Pharmaceuticals Limited
-E	China National Biotec Group (CNBG)
B	EuBiologics, Co. Ltd.
-G	Finlay Institute
-G	Green Cross Corporation
-G	Haffkine Bio-Pharmaceutical Corporation Limited
-G	Hualan Biological Engineering Inc.
-G	Incepta Vaccine Ltd
B	Indian Immunologicals Limited
-Co	Institute of Vaccines and Medical Biologicals
B	Instituto Butantan
-G	Laboratorios de Biológicos y Reactivos de México, S.A. de C.V. (BIRMEX)
-G	LG Life Sciences Ltd
-G	Liaoning Cheng Da Biotechnology Co., Ltd (CDBIO)
A	National Administration of Laboratories and Institutes of Health ANLIS "Dr. Carlos G. Malbrán"
-Co	Panacea Biotec Ltd
-G	Pasteur Institute of Iran
-G	Queen Saovabha Memorial Institute
-G	Razi Vaccine & Serum Research Institute
G	Serum Institute of India Ltd
-Co	Sinergium Biotech S.A.
£	Sinovac Biotech Ltd.
	SK Chemicals (Life Science Biz division)
£	The Biovac Institute
£	The Center for Genetic Engineering and Biotechnology
£	The Company for vaccine and biological production No.1 - VABIOTECH
-Co	The Government Pharmaceutical Organization
	The Holding Company for Biological Products & Vaccines (VACSERA)
-Co	Walvax Biotechnology Co., Ltd



DEVELOPING | COUNTRIES | VACCINE | MANUFACTURERS | NETWORK

C/o PATH, STATE IMMUNIZATION BUILDING, 2ND FLOOR, SULTAN BAZAAR, HYDERABAD - 500 095. A.P. INDIA PH: +91 40 3021 4103 FAX: +91 40 2767 5003 EMAIL: ADMIN@DCVMN.ORG WEB: WWW.DCVMN.ORG

International Secretariat: Chemin du Canal, 5, CH-1260, Nyon, Switzerland Phone: +41 22 363 9127, Fax: +41 22 362 8211, email:executivesecretary@dcvmn.org