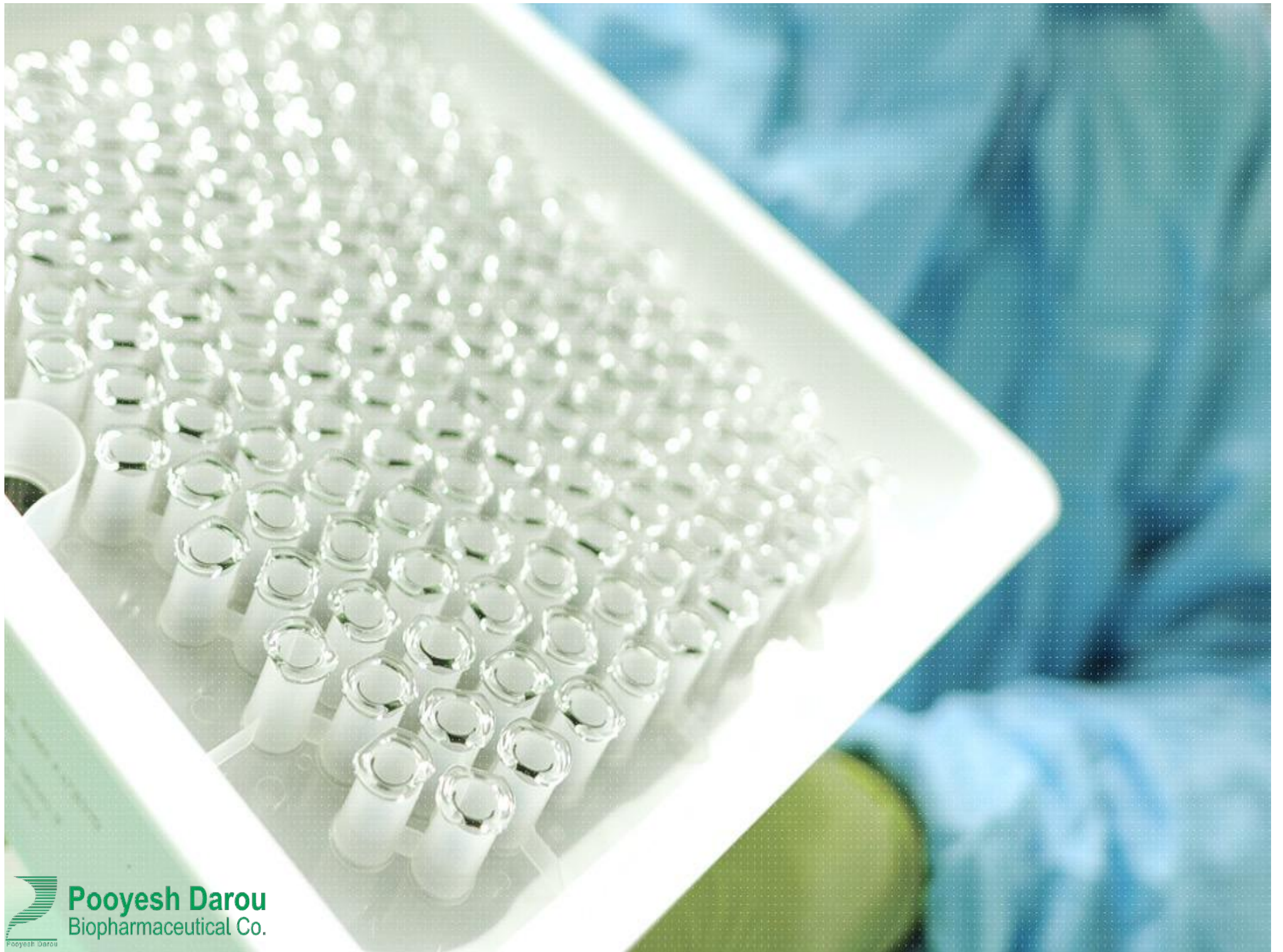




Pooyesh Darou

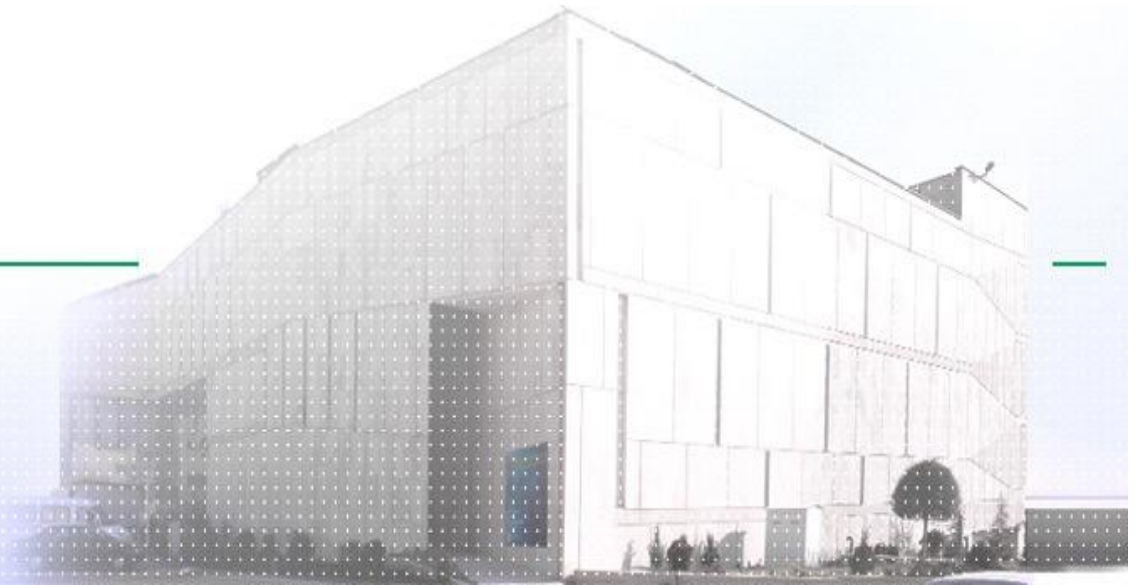
Biopharmaceutical Co.

Innovation for a better Life





Pooyesh Darou
Biopharmaceutical Co.



Pooyesh Darou Biopharmaceutical Company

- Founded in 1998 as the first knowledge based biopharmaceutical company in Iran
- Collaboration with the leaders in biotechnology the **International Center of Genetic Engineering and Biotechnology (ICGEB)** in Trieste, Italy and **Pharmaceutical Biotechnology department, Tehran University of Medical Sciences**
- Collaboration and Clinical studies in **Medical School, Tehran University of Medical Sciences, Iran**



TEHRAN UNIVERSITY
OF
MEDICAL SCIENCES



**International Centre for Genetic
Engineering and Biotechnology**

Developing Knowledge

Our Staff



Qualification	Numbers
PhD and specialists	12
Pharm D. and M.D	15
Graduate (MSc.)	40
Under Graduate (BSc.)	60
Diploma and others	110
Total	237

A photograph of a cleanroom facility. The scene shows a long, low-profile stainless steel cabinet or workbench. On top of the cabinet, there is a complex piece of machinery with various pipes, valves, and a control panel. The machinery is enclosed in a stainless steel frame with a grid-like structure. The floor is a bright, reflective blue. The lighting is bright and even, highlighting the clean and industrial nature of the environment.

Facilities

API Production Units

- **Unit A & B:** 750 m² each for production and purification of recombinant proteins from bacteria.
- **Unit C:** 600 m² for production and purification of recombinant proteins from mammalian cells.
- **Unit D:** [*future expansion 2016*]: 400 m² for industrial fermentation with capacity of 2000 L / batch.
- **Unit E:** [*future expansion 2017*]: 500 m² for production and purification of recombinant proteins from CHO.



Finished Product Lines

Division A

Line	Dosage form	Capacity/year
A	Vial- liquids	30,000,000
	Vial- lyophilized powder	10,000,000
B (2016)	Cartridge	20,000,000
C	Prefilled syringe (PFS)	30,000,000
D	Ampule	40,000,000
E (2016)	Powder	10,000,000

Division B [future expansion 2017]

Line	Dosage form	Capacity/year
A	PFS	40,000,000
B	PFS	40,000,000
C	Vial-liquids	40,000,000



Water treatment System

- Christ (Germany)
- Capacities:

Type of water	Capacity
Purified water (PW)	3500 L/hr
Water for injection (WFI)	1170 L/hr
Pure steam (PS)	1200 L/hr

- Storage tank PW 5000 L
- Storage tank WFI 3500 L



Prefilled Syringes Filling

- Bausch + Strobel (Germany)
- 12,000 PFS/hr
- 5 injectors



Freeze Dryer

- Two freeze dryers
- Total drying area: 22 m²
- Total Capacity: 80,000 Vial 2R
- Total Ice Condenser capacity: 300 kg



Vial Filling

- Bausch + Strobel
- 12,000 Vials/hr
- Vial washing
- Sterilization Tunnel



Ampoule Filling

- Bausch & Strobel
- Capacity: 18,000 Amp/hr
- 6 injectors



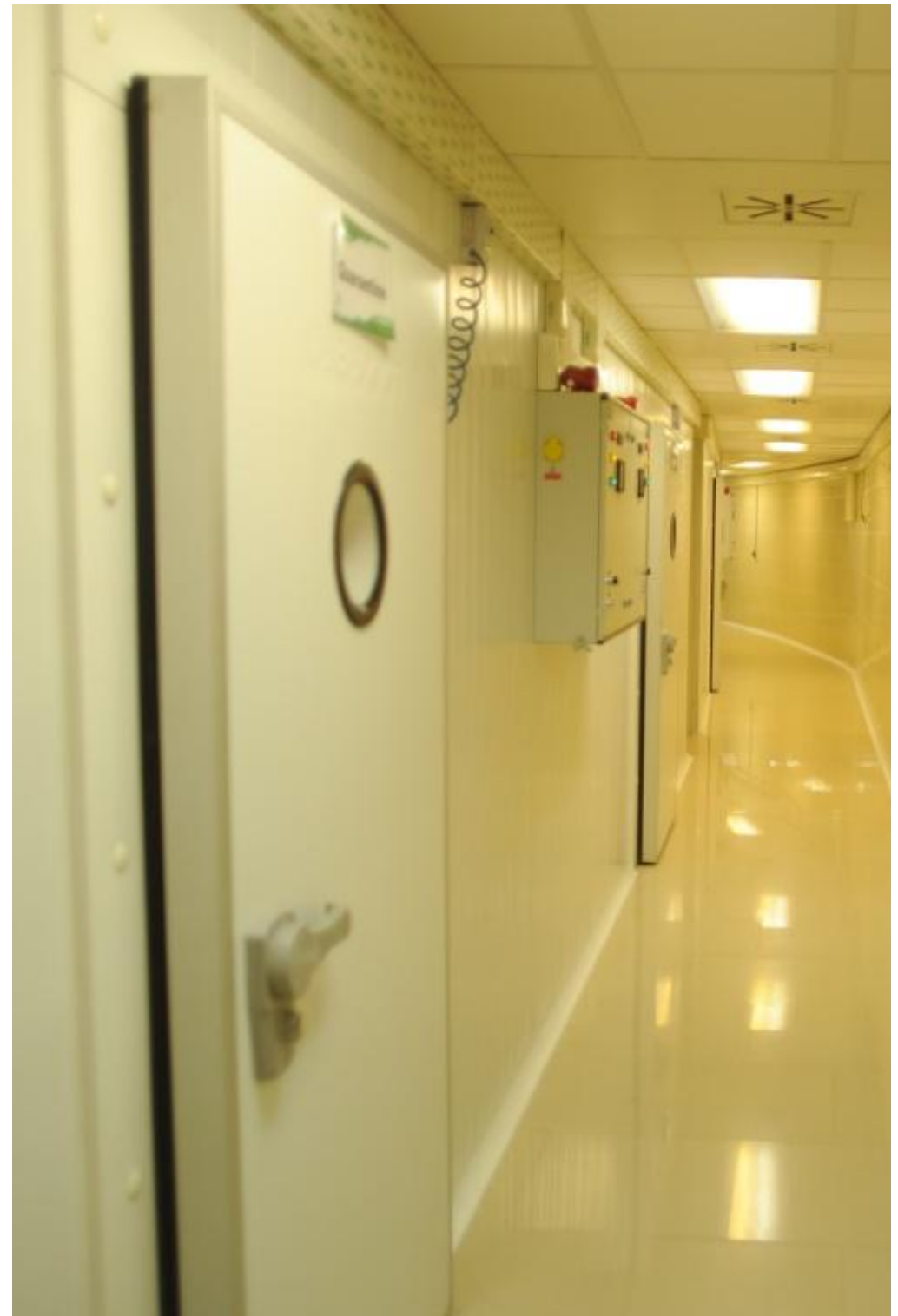
Labeling

- Labeling for ampoule & vial :
Capacity 9000 containers/hr
- Labeling & plungering PFS:
Capacity 6000 syr/hr



Refrigerators

- 6 Cold rooms 2-8 °C
- Total capacity about 450 m³



A person wearing a white lab coat and a white face mask is holding two glass ampoules. The ampoules are held in white gloves. The ampoules have labels that read 'MFT', 'Batch No', and 'Pooyes'. The background is blurred, showing a clinical or laboratory setting.

Our products

API and Finished Products

❖ **PDferon®** Interferon alfa-2b (3 MIU, 5 MIU / ml), 2000

❖ **Pegaferon®** Peginterferon alfa-2a (180 µg / 0.5 ml), 2007

❖ **PDgrastim®** Filgrastim (G-CSF) (300µg / 0.5 ml), 2002

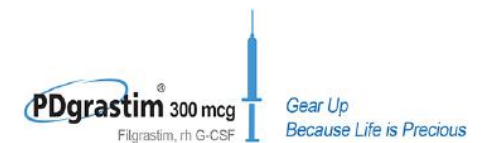
❖ **PDlasta®** PegFilgrastim (6mg / 0.6 ml), 2015

❖ **PDpoetin®** Erythropoietin alfa (2000 IU, 4000 IU, 10000, 20000, 40000 IU / 0.5 ml), 2004

❖ **PDcera®** Pegerythropoietin (100µg, 200µg / 0.3 ml), 2016

❖ **PDgrowth®** Somatotropin (4 IU / ml), 2013

Technology Transfer from Argentina 2015

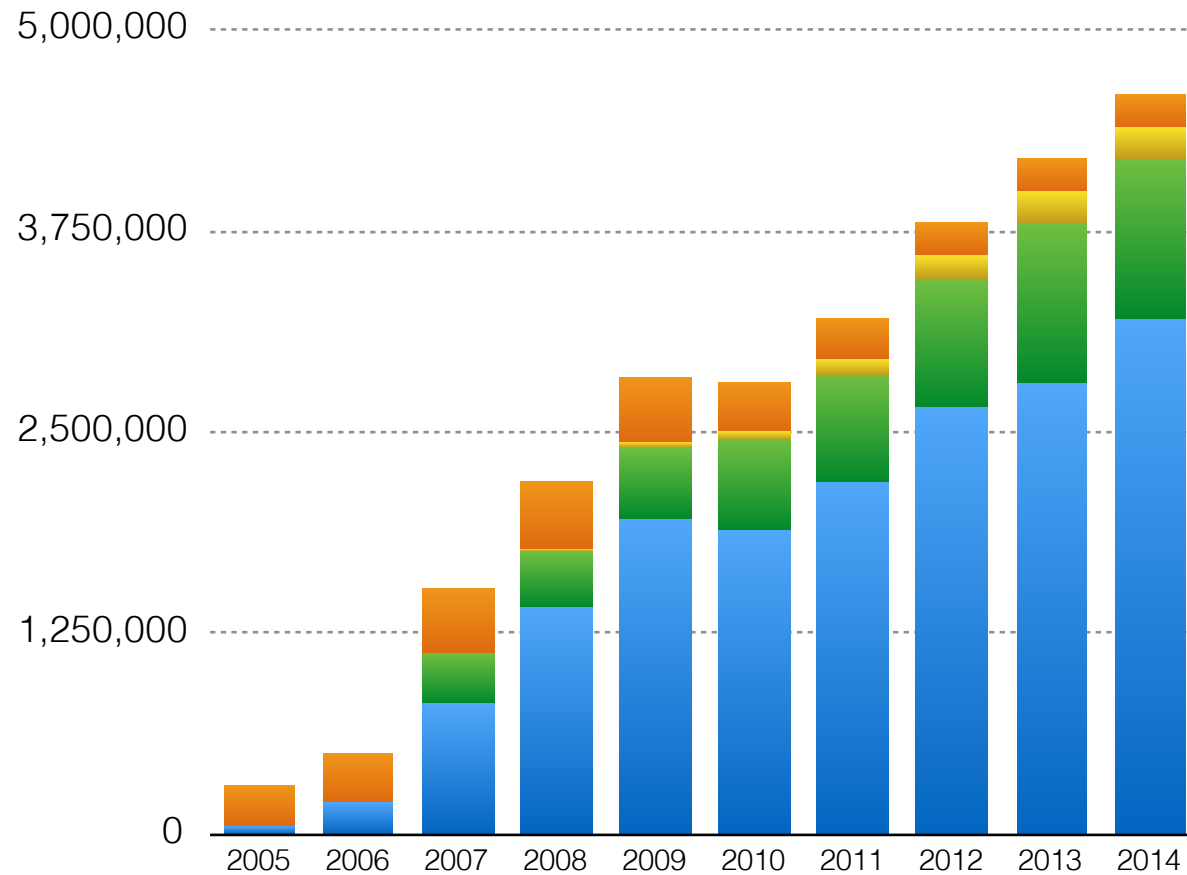


Finished Products

- ❖ PDHoMoG[®] Human Menopausal Gonadotrophin (75 IU / ml) **Germany**
- ❖ PDpreg[®] Human Chorionic Gonadotropin (5000 IU / ml) **Germany**
- ❖ PDxane[®] Enoxaparin Sodium (2000 IU / 0.2 ml, 4000 IU / 0.4 ml, 6000 IU / 0.6 ml, 8000 IU / 0.8 ml) **China**
- ❖ Microrelin[®] Triptorelin (3.75 mg / 2 ml) **Italy**



API Production Volume



- PDferon ® / Interferon alfa-2b
- Pegaferon ® / Peginterferon alfa-2a
- PDgrastim ® / Filgrastim (G-CSF) 300µg
- PDpoetin ® / Erythropoietin (4000IU equivalent)

Pegaferon 180mcg
Peginterferon alfa-2a
Cornerstone of Chronic Hepatitis C Therapy



PDpoetin
2000 / 4000 / 10000 / 20000 / 40000
r-Hu-Erythropoietin Alpha
The first choice for Renal Anemia



PDgrastim 300mcg
Filgrastim, rh G-CSF
Gear Up
Because Life is Precious



PDlasta
Pegylated Filgrastim
A New Song for Life
(Prolonged duration form of PDgrastim)



Registered Countries for Pooyesh Darou Products

- Pakistan
- Syria
- Iraq
- Azerbaijan

Under Registration

- Russia
- Algeria
- Belarus

Pegaferon[®] 180mcg
Peginterferon alfa-2a

Cornerstone of Chronic
Hepatitis C Therapy



PDpoetin[®]
2000 / 4000 / 10000 / 20000 / 40000
r-Hu-Erythropoietin Alpha

The first choice for R



PDgrastim[®] 300 mcg
Filgrastim, rh G-CSF

Gear Up
Because Life is Prec



PDlasta[®]
Pegylated Filgrastim

A New Song for Life
(Prolonged dosage form of PDgrastim)



Prefilled Syringes (PFS)

In Pooyesh Darou Biopharmaceutical Co. we are using “BD Hypak™ for Biotech” for our finished products which is specifically optimized for biotech drugs, addressing key factors of compatibility with drug and secondary active packaging.

BD Hypak™ for Biotech provides:

- ✧ Increased patient convenience assurance through optimized container/device integration
- ✧ Reduced number of cosmetic defects
- ✧ Reduce risk of container/sensitive drug interactions



BD Hypak™ for Biotech
Glass Prefillable Syringe

Just Released

PDHoMoG[®]

Human Menopausal Gonadotropin (HMG)



PDHoMoG[®], Human Menopausal Gonadotropin (HMG), is a fertility hormone derived from the urine of postmenopausal women. It contains equal amount of 2 hormones, Follide Stimulating Hormone (FSH) and Luteinizing Hormone (LH), both secreted by pituitary glands. PDmenotropin[®] is mostly used to stimulate follicular growth and maturation during infertility treatment.



PDpreg[®]

Human Chorionic Gonadotropin
Highly purified

PDpreg[®], Human Chorionic Gonadotropin (HCG), is a highly purified polypeptide hormone produced by cells of the placenta and extracted from urine of pregnant women. HCG is a hormone that supports the normal development of an egg in a woman's ovary, and stimulates the release of the egg during ovulation. PDpreg[®] is used to cause ovulation and to treat infertility in women, and to increase sperm count in men. PDpreg[®] is also used in young boys when their testicles have not dropped down into the scrotum normally. This can be caused by a pituitary gland disorder.

Coming Soon



PDcera[®], methoxy polyethylene glycol-erythropoietin beta, is a continues erythropoietin receptor activator (cera) which differs from erythropoietin through formation of a chemical bond of methoxy polyethylene glycol (PEG). The kidneys produce the natural hormone erythropoietin, which stimulates the production of red blood cells in the bone marrow and spleen. PDcera[®] has greater activity in vivo as well as increased half-life, in contrast to erythropoietin.

PDGrowth[®]
Growth hormone (somatropin) 4 I.U.
Somatropin

PDgrowth[®], somatropin, is a human growth hormone (hGH) produced by recombinant DNA technology. PDgrowth[®] is synthesized by a special strain of E. coli bacteria that has been modified by the addition of a plasmid which carries the gene for human growth hormone. The amino acid sequence of the somatropin protein is identical to that of the hGH of pituitary origin.



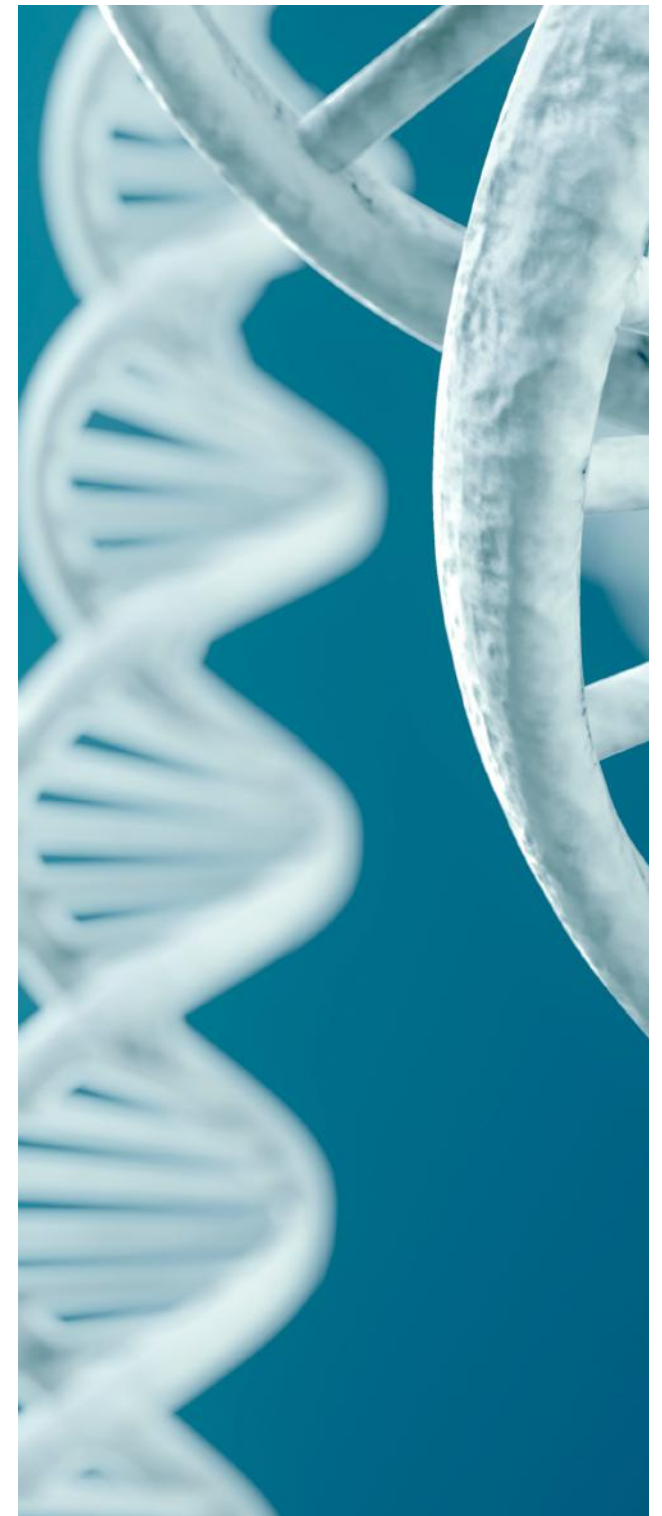
Pipeline

Research & Development

- Exenatide
- Triptorelin 11.25mg and 22.5 mg
- Interferon beta-1a
- Pegylated Interferon beta-1a

Market Analysis

- New generation Insulins
- Monoclonal Antibodies





Our partners



International Centre for Genetic
Engineering and Biotechnology

Developing Knowledge



TEHRAN UNIVERSITY
OF
MEDICAL SCIENCES

Solutions
for Your Research

primm

Our sister companies



HOMA PHARMED
Pharmaceutical Co.



RAAK DAROU
trading co.



پخش دی دارو امید
Day Darou Omid



Pooyesh Darou
Biopharmaceutical Co.



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