Hovione 60th anniversary
A timeline

Guy Villax

Mumbai, 19th November 2019

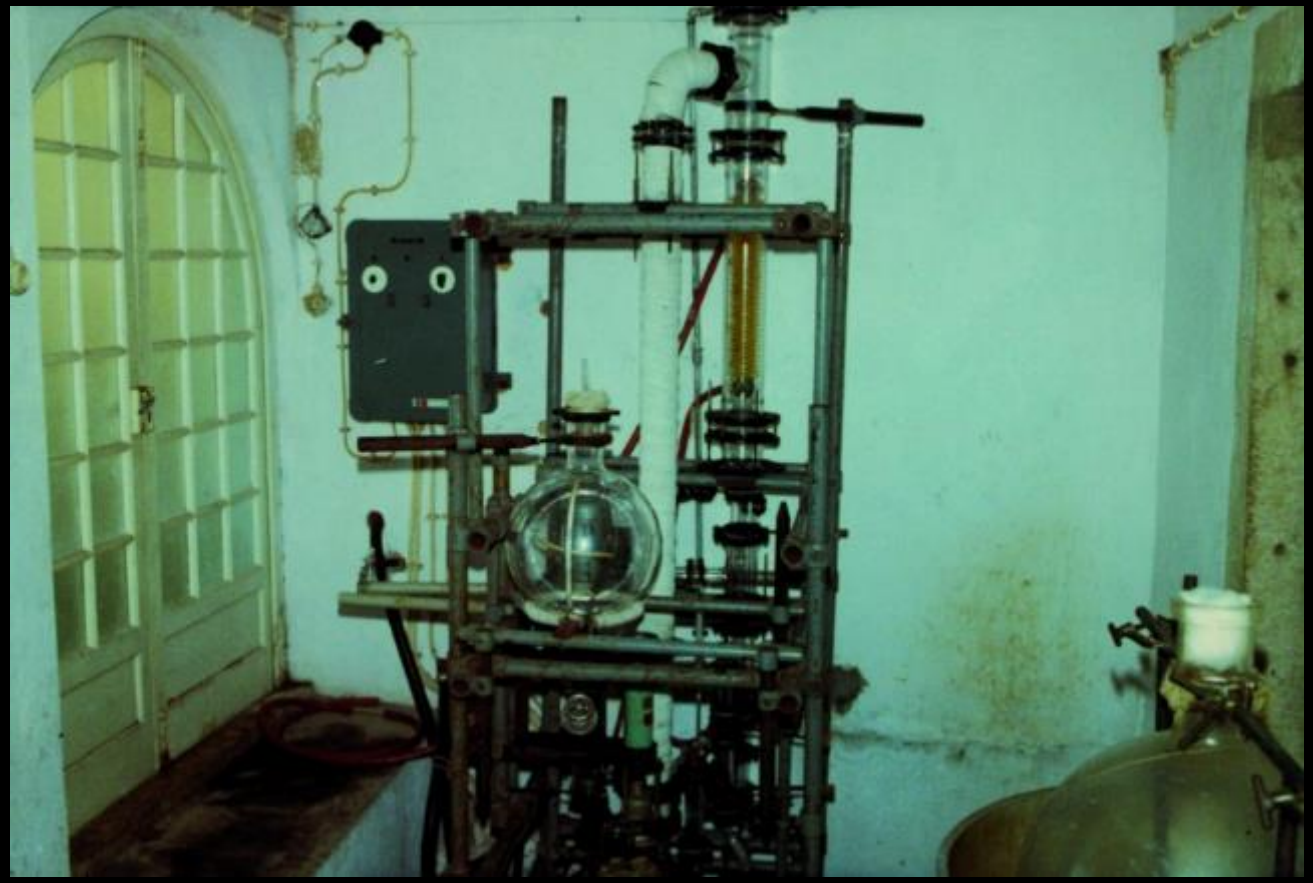
1950 - 1958

Ivan Villax arrives in Lisbon in 1952 and starts a new life. He starts working at the Instituto Pasteur, reaching the position of Technical Director, embracing a life-long activity in product and process development and patenting.

1950

Diane Du Boulay and Ivan Villax meet in 1957 and are married in 1958. Their partnership in life and work would last 46 years.

Hovione's first lab is in the family home at Travessa do Moinho de Vento, a quiet residential area in Lisbon.
In 1960, the family moves to a larger house in Travessa do Ferreiro, where the lab occupies the basement. Eventually it would expand into the garden.



1960-1969

Hovione is founded on April 8, 1959, by Diane Villax and two other shareholders, Horthy and Onody. Their surnames' first syllables joined together result in Hovione's name.
By 1963, the Villaxes acquire sole ownership of the company.

The first products to be manufactured, in a home laboratory, are antibiotics.

1960

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1970

From early days Japan is a crucial market for the Company. Japanese labs approach Hovione because of its process patents in the area of corticosteroids. Tobishi was the main customer at that time.

Ivan and Diane Villax attend the Canton fair in the Autumn of 1978. Deng Xiaoping has only just reached power but the writing is already on the wall: China has a promising chemical industry manufacturing raw-materials and is good destination for Hovione.

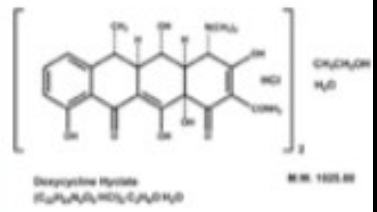
1969 - 1979

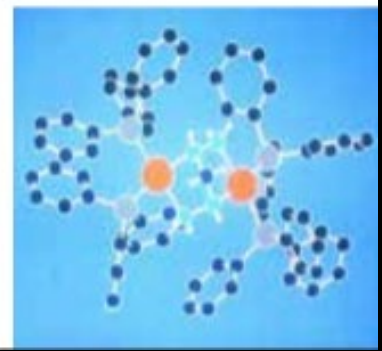
Thanks to hard work, good luck and his patents, Ivan Villax becomes the technical director and a shareholder in an Italian company. Upon its sale, the proceeds provide the capital for Hovione's first industrial plant, in Loures, which starts to operate in 1970.

Through profit re-investment, the company is able to grow and increase its manufacturing capacity.
However Villax is keen to expand into the Far-East and build a second site.

1980

The 1980s are a successful decade in the manufacture and sales of doxycycline. Hovione expands into the US market, supplying this antibiotic to an emergent generics industry. But the decade would also be marked by intense patent litigation between Pfizer and Hovione concerning the homogenous catalysis final step. The controversy around the role of Villax's rhodium catalyst, pictured here, would lead to a collaboration with Nobel laureate Sir Geoffrey Wilkinson, and after 10 years the matter was settled.





1985-1997

This Financial Times article, from 1982, is the first time Hovione gets the media's attention. The author focuses on the unlikely combination of a family business and cutting edge technology.

FINANCIAL TIMES

THE MANAGEMENT PAGE: Small Business

A laboratory of inventiveness

In 1989, Japanese pharmaceutical company Taiho launches Methaderm, a topical formulation of Hovione's dexamethasone dipropionate. This was Hovione's third NCE to have reached the market, after chloranfenicol palmitate in the 1960s and doxycycline fosfatex in the 1970s.

Doxycyline production expands in Loures, with a second production building.

Hovione Macau is incorporated and a contract is signed with the Macau government securing a 25-year concession for a plot of land in Taipa. Construction begins in 1985 and the plant starts to operate in December 1986. The first FDA inspection takes place in June 1987.

1992 - 2008

In 1992, Hovione enters a European Union sponsored competition, the Award for Better Environment in Industry, in the recovery of waste category.
Hovione wins.

Hovione's 500th patent is granted and the company starts to explore other IP avenues in inhalation technology.

1990

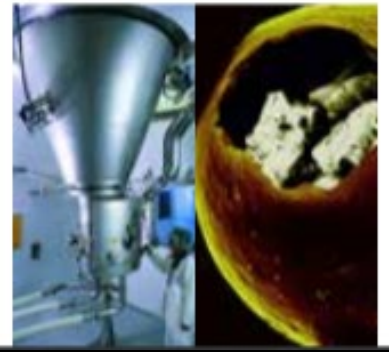
2000

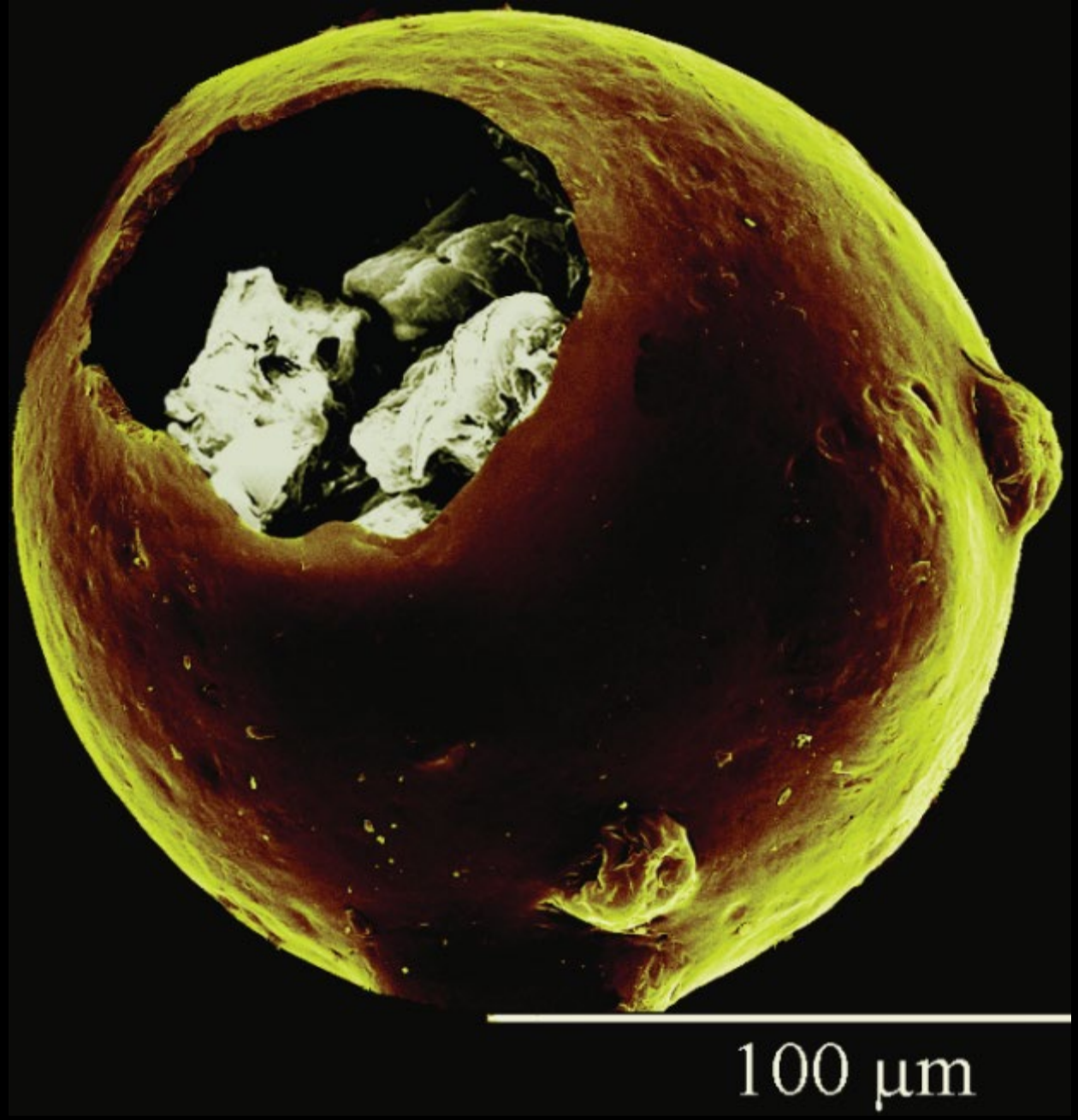
In 1990, after 42 years of absence, Villax returns to Hungary. His alma mater, the Technical University of Budapest awards him a doctorate after evaluating his scientific curriculum. He would later say this was one of the happiest days of his life.

In 2000, in New Jersey we build Hovione's Technology Transfer Centre. Evidence of our commitment to serving the US pharma innovators.

From 1995 onwards, Ivan Villax begins handing over his responsibilities to Guy.

In 2005, Hovione enters a new phase. Using spray-drying we begin to manufacture drug product intermediates.





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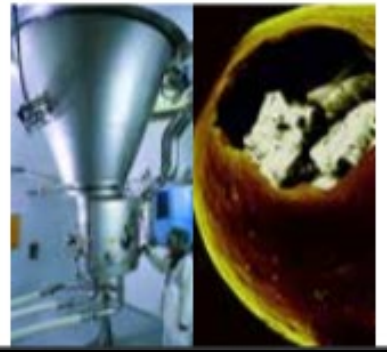

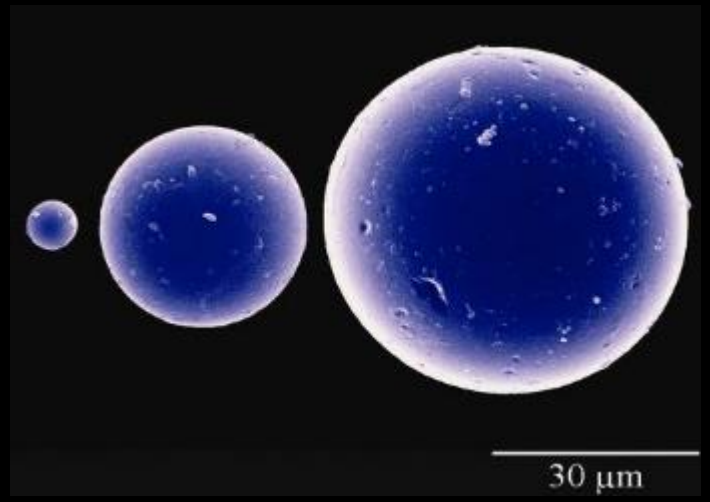

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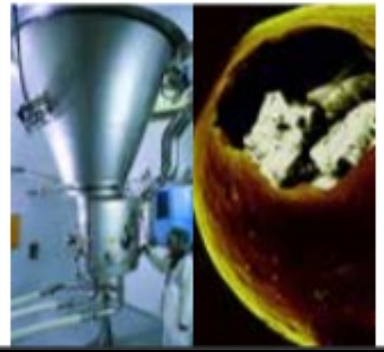
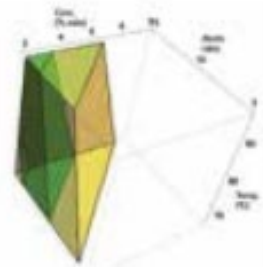


2009

Hovione develops an inhaler, TwinCaps®, specially for the avian influenza scare in 2005.
Inavir TwinCaps® is approved in 2010 in Japan and reaches a 40% market share.

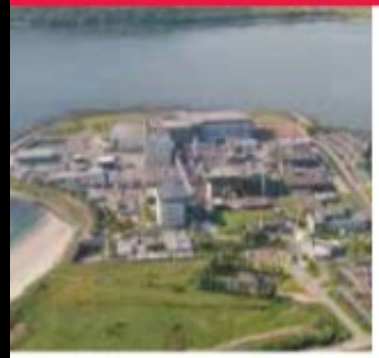


Over the next decade we will produce the vast majority of new drug approvals for spray-dried dispersions (SDDs).

In 2008, we acquire a new industrial site, in Taizhou, south of Shanghai, where contrast media is produced - it becomes the largest producer of generic iohexol and ioparnidol.

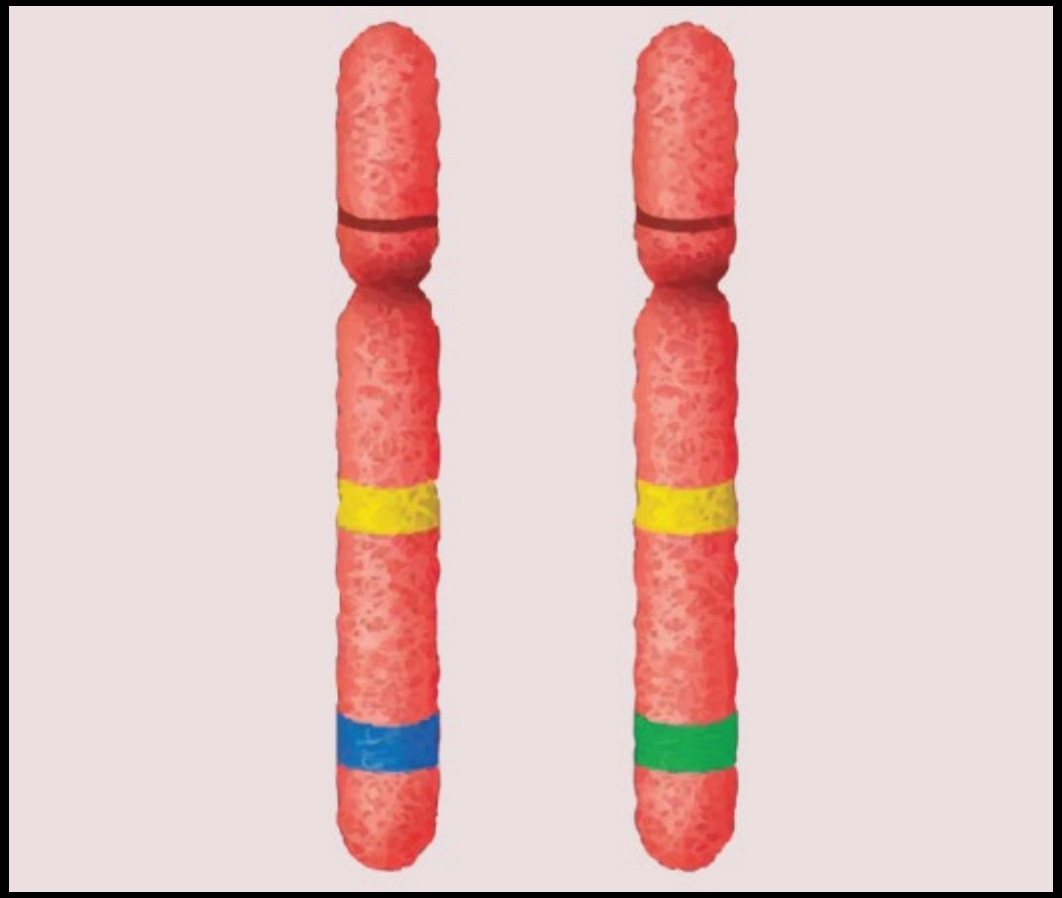
Ivacaftor is approved to treat the causes of cystic fibrosis.
It is also the first genotype specific drug approval, developed under full QbD.

2010



In it for life becomes our motto. This reflects our increasing contribution to patients' lives, the imperative of actively building a quality culture, the need to operate in a safe manner, the diversity of a team that constantly strives to learn, but more than anything else it refers to the kind of commitment every client gets from each one of us.

In it for life



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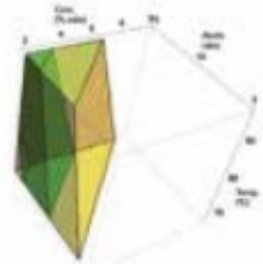

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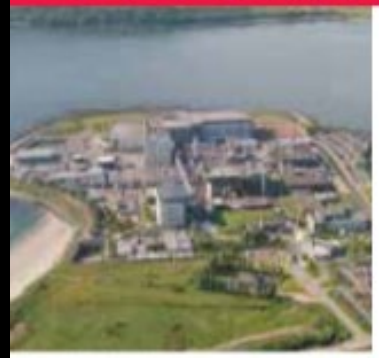

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Dr. Reddy's Lab. Audit
2017 September 12-13

12th Sept. 17

(Tanmay D. Pathak)

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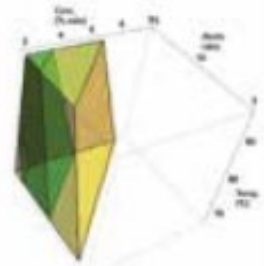

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In it for life

2015

As from 2014 we stand behind no less than 4 new drug approvals by FDA in each year.
We believe that the number of approvals will grow and we are investing to continue to be part of this success.

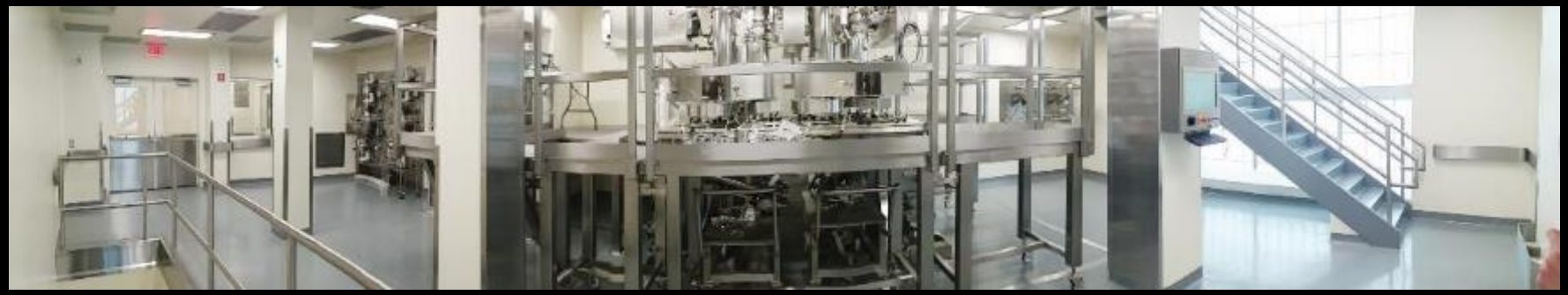
In Sete Casas we open a Drug Product Center. This allows us to formulate oral forms and inhaled drugs.

Hovione Capital is founded to focus on investing in early-phase start-ups.

2015

We partner with Vertex in continuous tabletting. Our commitment to PAT and automation, our pragmatic approach to compliance, our desire to understand and model processes lead us to make bold steps into continuous manufacture in both flow chemistry and formulation.

Our 9°W Program starts funding students and establishing partnerships with Academia. We installed an analytical chemistry lab that runs our LIMS, our specs and our methods in ISEL, a vocational training college.



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2019

In 2017 our R&D moves from Sete Casas to Lumiar. This 7.600m² state-of-the-art lab has 230 scientists focusing on the process development and analytical characterization of new medicines.

Diane Villax receives a medal for scientific merit from the Portuguese Minister of Science, Technology and Higher Education.

2019

Our first IND (investigational new drug), a minocycline gel, concludes a successful Phase II trial.

Hovione takes an active part in the global standard setting process. Hovione Team-Members sit on both ICH's Q12 and Q13.

The Sun is rising.
Today is a new day.

Thank you
for your attention

Hovione

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