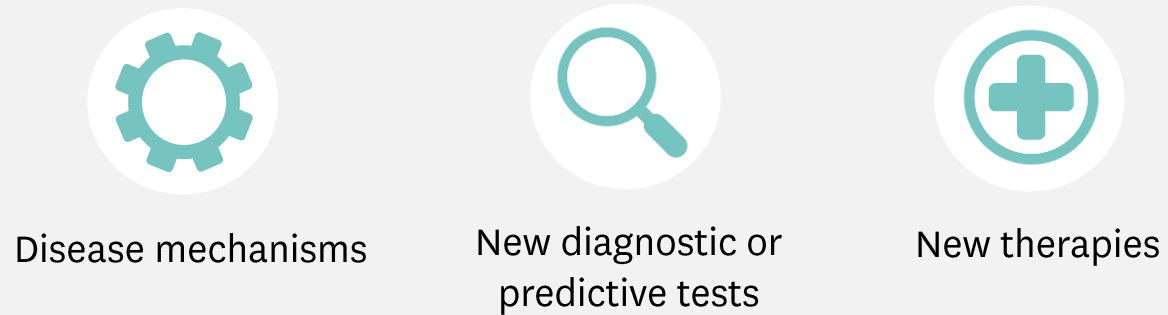
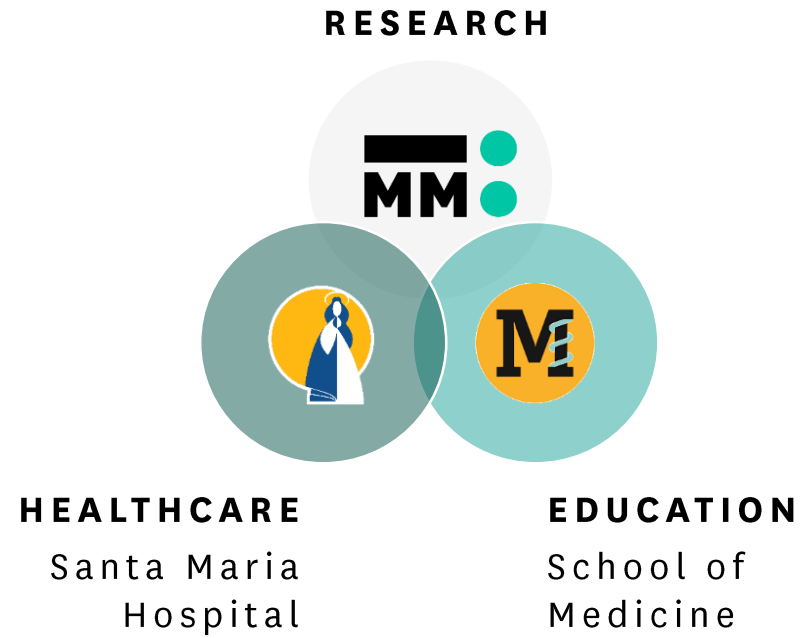


Technology Transfer Office

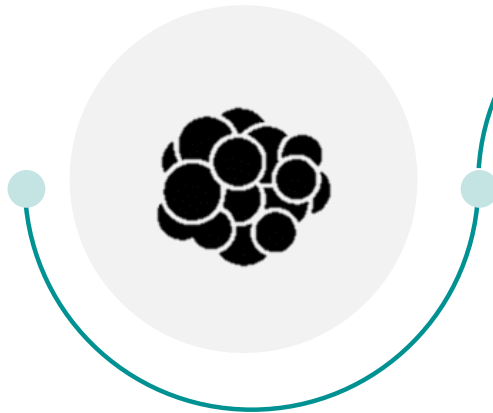
Pedro Silva | Director of the Unit

In a nutshell



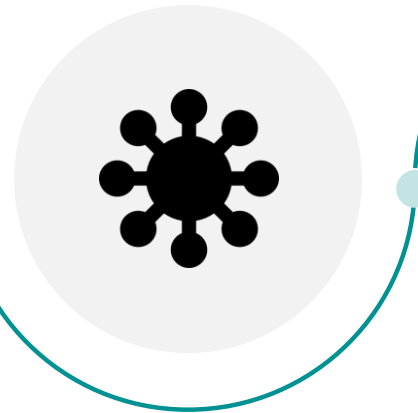
Oncology

Solid Tumors, Leukemia, Brain cancer
Carcinogenesis, Metastatic Disease
Therapy, Immuno-therapy, Biomarkers



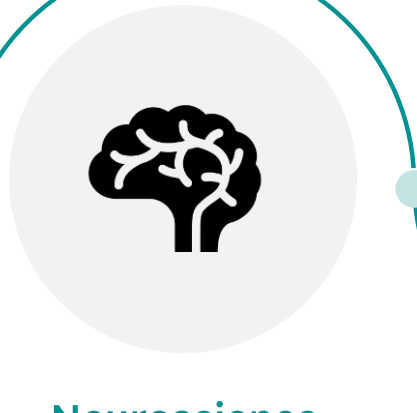
Infection

Host-microbe interaction
Parasite, Bacteria, Virus biology
Pathology
Therapy/ vaccines



Neuroscience

Ageing
Neurodegenerative disease
Neurophysiology
Neuromuscular disorders
Neuropharmacology



Immunology & Inflammation

Inflammation
Immune-mediated pathology
Auto-immune Disease



State-of-the-art facilities

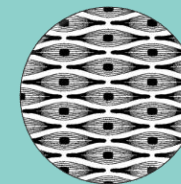
Biobank



Bioimaging



Histology & Comparative Pathology



Clinical Research Center



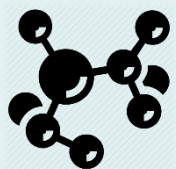
Insectary



Rodent Facility



Analytical And Structural Biochemistry



Flow Cytometry



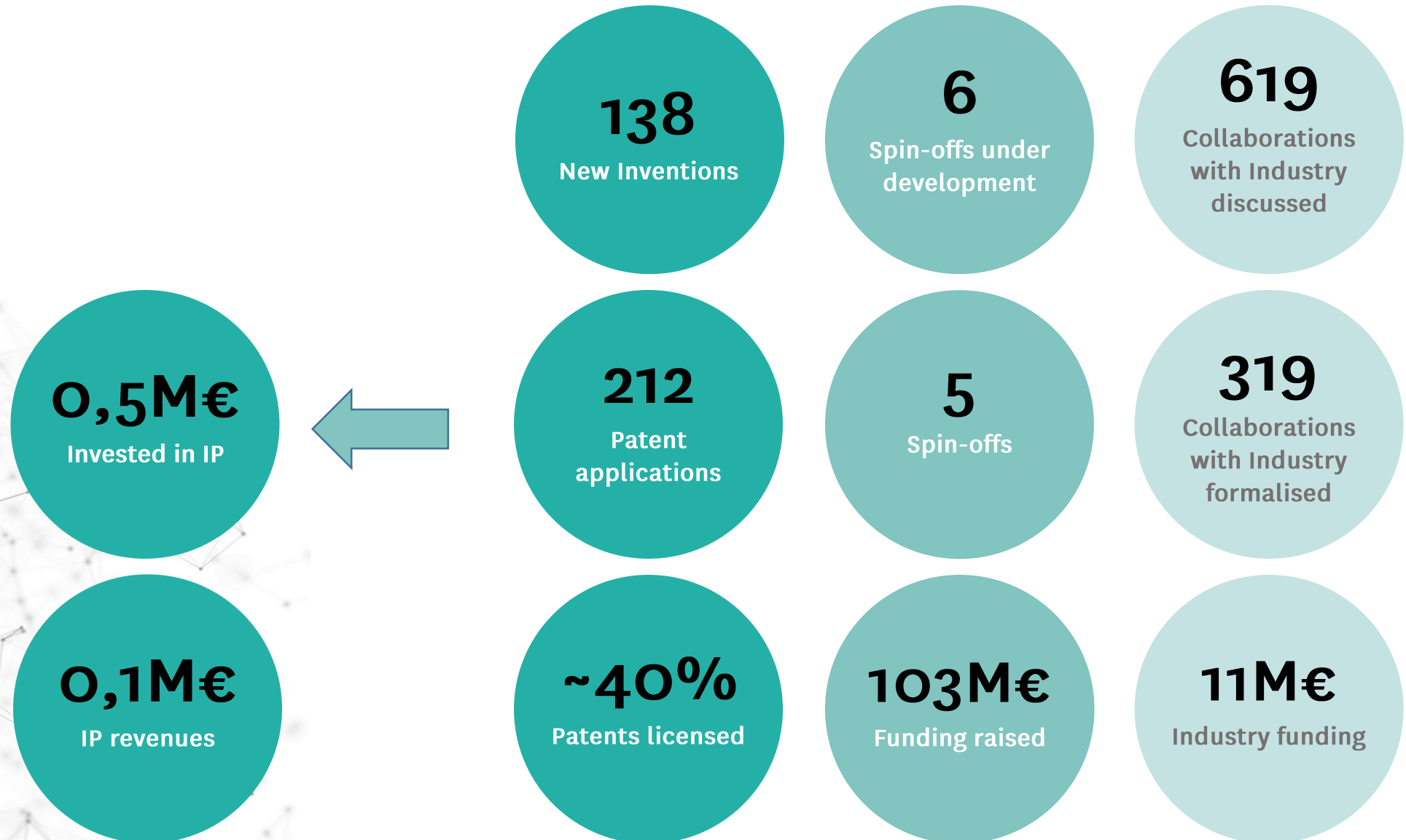
Fish Facility



Genomics, Metabolomics and Proteomics



KPIs of core activities in the first 5 years (2018 – 2023)



Leading biomedical tech transfer in Portugal

	Research Groups	TTO staff	Patent families *	Spin-offs
iMM	31	4	27	10 (since 2005) 5 VC-backed, 71.4M€
IGC	27	2	5	0
Champalimaud	27	2	11	0
i3S	74	11	20	2 spin-offs 2 VC-backed, 10.5M€

* timeframe: 2017-2022

Sources: institutes' websites, PatSnap e Crunchbase

Very competitive TT activity compared with similar European institutes








	Research Groups	TTO staff	Family of patents*	Spin-offs
iMM	31	4	27	10 (since 2005) 5 VC-backed, 71.4M€
CRG (Spain)	32	6	18	6 (since 2008) 3 VC-backed; 41.2M€
IRB (Spain)	31	5	15	7 (since 2006) 6 VC-backed, 58.7M€
Babraham Institute (UK)	29	N/A	17	N/A
Sanger Institute (UK)	31	9	23	5 (since 2011) 5 VC-backed, 408.2M€
IGBMC (France)	600 research staff	N/A	30 (total portfolio)	6 (since 2011) 2 VC-backed, 112.3M€
FMI (Switzerland)	20	N/A	32	No start-up activity identified
CeMM (Austria)	19	N/A	19	6 (since 2017) 4 VC-backed, 6M€

* timeframe: 2017-2022

Sources: institutes' websites, PatSnap e Crunchbase

iMM research and IP assets fuel a strong and attractive pipeline in therapeutics



THERAPEUTICS

	ASSET	LAB	PARTNER(S)	DISCOVERY	PRECLINICAL	CLINICAL
ONCOLOGY	New target for ALT cancers	CAzzalin		<div></div>		
	TRPV2 antagonists	GBernardes		<div></div>		
	TEC inhibitors	GBernardes		<div></div>		
	New treatment based on CO releasing	GBernardes		<div></div>		
	Cell therapy based on $\gamma\delta$ T cells	BSSantos		<div></div>		
	Development of traceless strategies for the selective release of BET inhibitors in cancer cells	GBernardes		<div></div>		
	RANK pathway + CDK inhibitors	LCosta		<div></div>		
	Induction of cellular lethality in cancer	SAlmeida		<div></div>		
	Gene therapy	JBarata		<div></div>		
	Anti-IL-7R antibodies	JBarata		<div></div>		
METAB. DISEASES	New target (Slc6a2) for obesity	GBernardes		<div></div>		
MULTIPLE	Peptide compounds to reduce side effects of CB1 receptor agonists	MCastanho	Disrupt Therapeutics	<div></div>		
	Method to produce TRM cells	MVeldhoen	Start-up to be created	<div></div>		
IMMUN.	Undisclosed target to inhibit T cell activity in inflammation	MVeldhoen		<div></div>		





	ASSET	LAB	PARTNER(S)	DISCOVERY	PRECLINICAL	CLINICAL
INFECTIOUS DISEASES	Piperlongumine (PL) for SARS-CoV-2	GBernardes		<div></div>		
	rG4 degraders	GBernardes		<div></div>		
	Anti-malarial small molecules	MMota		<div></div>		
	Peptide conjugates for Zika	MCastanho		<div></div>		
	New porphyrin-CPP conjugates with antiviral activity	MCastanho		<div></div>		
	New antimicrobial agents	MPrudêncio		<div></div>		
	Plant extracts with antiviral activity	PSimas		<div></div>		
	Neutralizing SARS-CoV-2 antibodies	LGraça		<div></div>		
NEUROSCIENCE	New drugs for AD and Epilepsy	ASebastião	 Co-Rep AccelDio	<div></div>		
	New target (TrkB-T1) for absence seizures	ASebastião		<div></div>		
	Use of Eletriptan Hydrobromide for SCI	LSaúde		<div></div>		
	New targets for SCI	LSaúde		<div></div>		
CARDIO.	MANF delivery to improve regenerative capacity in the skeletal muscle	PSVitor	Start-up to be created	<div></div>		
	ASO HCM	MCFonseca		<div></div>		

Not so prolific, but still attractive in other products and technologies

DIAGNOSTICS

	ASSET	LAB	PARTNER(S)	DISCOVERY	PRECLINICAL	CLINICAL
INF.	Biomaterial for immunoassays	NSantos		<div><div></div></div>		
	Serological test for COVID-19	MVeldhoen		<div><div></div></div>		

VACCINES

	ASSET	LAB	PARTNER(S)	DISCOVERY	PRECLINICAL	CLINICAL
MULTIPLE	Vaccine compositions	GBernardes		<div><div></div></div>		
	Novel vaccine carrier protein	PSimas		<div><div></div></div>		
	CRM197 protein carrier	GBernardes		<div><div></div></div>		
	New method to produce CRM197 protein	GBernardes		<div><div></div></div>		
INF.	Malaria vaccine	MPrudêncio		<div><div></div></div>		

ENABLING TECHNOLOGIES

	ASSET	LAB	PARTNER(S)	DISCOVERY	PRECLINICAL
CARDIO.	hiPSC-based model of cardiomyocytes	MCFonseca	Start-up to be created	<div><div></div></div>	
MULTIPLE	Microfluidic plate	CFranco		<div><div></div></div>	
	Method to stabilize mRNA technologies	LFigueiredo		<div><div></div></div>	
	Peptides that translocate the BBB	MCastanho		<div><div></div></div>	
NEURO ONC.	Muscle-on-a-chip	EGomes	Start-up to be created	<div><div></div></div>	
	R-loop sensor	SAlmeida	Start-up to be created	<div><div></div></div>	

An entrepreneurial institute from the onset



2004

Molecular Diagnostics

Acquired by SYNLAB in 2022



2004

Therapeutics (biologics)

License agreements
Active



2013

Therapeutics (cell therapy)

License agreement
Acquired by GammaDelta Tx
(Takeda) in 2018



2014

Vaccines (malaria)

Inactive



2015

Biotechnology (cell culture)

Inactive



2017

Diagnostics (enabling technologies)

License agreement
Active



2018

Therapeutics (cell therapy)

License agreement
Inactive



2019

Therapeutics (small molecules)

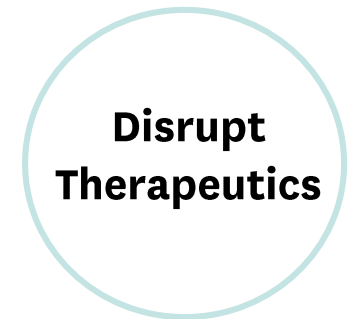
License agreement & equity
Active



2020

Therapeutics (small molecules)

License agreement & equity
Active



2023

Therapeutics (small molecules)

License agreement & equity
Active

Start-ups provide multiple revenue streams



Sponsored research agreements totalling 2.5M€ from 2018
Milestone payments (order of millions until 1st approval)
Royalties (2-5%)
Sublicensing income



Sponsored research agreements totalling 0.55M€ from 2020
Equity
Milestone payments (order of millions until 1st approval)
Royalties (2-5%)
Sublicensing income
Corportate income

+ Licening new IP from another lab (new biomarker expanding target population)
Sponsored research agreement (125k€)

With new ventures in the making

T3 – microRNA based therapy in oncology; JBarata Lab (lead Rita Fragoso); ERC POC ongoing



B4Neuro – innovative therapies to modulate the BDNF pathway in neurodegenerative diseases; ASebastião Lab (lead Maria José Diógenes); funding to develop small molecules and new biomarker strategy for AD (PRR)

B4Neuro

Novel drug discovery platform based on R-loops activity; SAlmeida Lab (lead Sérgio Almeida); non-dilutive funding to establish drug discovery platform and start screening of compounds with relevant activity (CTI)



MyoChip – organ-on-chip technology for drug discovery in neuromuscular disorders; EGomes Lab (lead Afonso Malheiro); ERC POC ongoing



Cell therapy platform based on tissue-resident memory cells; MVeldhoen Lab (lead Marc Veldhoen) non-dilutive funding to establish preclinical PoC in target initial indication (CTI)

Human-based models and gene therapy to treat hypertrophic cardiomyopathies (HCM); Carmo-Fonseca Lab (lead Marta Furtado); ongoing work to test ASOs designed in patient-derived cardiomyocytes

Promoting partnerships with the biotech and pharma industry



Flexible partnership model with industry

iMM ● **INDUSTRY:**

you identify and report to us a specific requirement for the progress or application of your research and we identify the best industry partner according to your need;

INDUSTRY ● **iMM RESEARCHER:**

you contact us to help defining and/or negotiating a collaboration with a company that is interested in working with you;

INDUSTRY ● **iMM TTO**

we are in close contact with a vast number of pharma and biotech companies and often identify needs that match iMM's research capacities.

SPONSORED RESEARCH:

funding of basic or clinical research in a specific field that fits into the interests and expertise of a particular research group. The sponsor can not make any claims to the results and IP. The benefit for the sponsor is early access to the results and opportunity to license IP.

COLLABORATIVE RESEARCH:

collaborative research is where two (or more parties) contribute to a research project through their scientific contribution, background IP, research staff and/or funding. Collaboration agreements make provision for sharing IP that was jointly created as well as coordinated dissemination and commercialization activities where applicable.

CONTRACT RESEARCH:

is a research requested by industry for a specific project to be carried out with identified aims and objectives. In return the company pays the commercial price for the research. Results and IP generated are normally owned by the company.

Besides our core TT activity we have been very active in competitive funding

197

PT/EU
applications
supported

53

PT/EU
applications
(TTO coord)

49.3M€

PT/EU funding

13.2M€

PT/EU funding
(TTO)

Investing in our R&T infrastructure and digital transformation



Need:

Expand excellence to clinical and translational research
Catch the digital transformation train
State-of-the-art RI and powerful drug discovery platforms and tools following tech & market trends



Solution:

Mission-driven, human-centred and data-powered clinical and translational research
New digital facilities - omics, AI / data, blockchain
World-class R&T facilities (digital, equipment)
DD platforms and human-based models



Instituto
de Medicina
Molecular



João
Lobo
Antunes