Research and care for the patient’s benefit

2015 annual report

Together, let’s beat cancer.

www.institut-curie.org
A leading player in the fight against cancer, Institut Curie brings together an internationally-renowned Research Centre and an advanced Hospital Group that provides care for all types of cancer – including the rarest forms.

Founded in 1909 by Marie Curie, Institut Curie comprises three sites (Paris, Saint-Cloud and Orsay), where more than 3,300 members of staff are dedicated to achieving three objectives: hospital care; scientific research; and the sharing of knowledge and the preserving of legacy.

As a private foundation that is recognised as serving the public interest, Institut Curie is supported by donations and grants. This support is used to fund discoveries that will improve treatment and the quality of life of cancer patients.
In 2014, the year was devoted to three main projects: bringing the Hospital Group’s budget back into balance; implementing a set of recommendations from France’s Court of Auditors; and reviewing MC²¹, our 2015-2020 plan for the institute’s future. In 2015, we voted through a balanced structural budget and we finished the year with a financial surplus. Meanwhile, all of the Court of Auditors’ recommendations have now been implemented. As for the future, we are moving forward with a series of initiatives, all of them approved by our Board of Directors. MC²¹ is a joint initiative of the Hospital Group and the Research Centre that aims to position Institut Curie as a world leading centre for cancer. It will look to promote the gathering and sharing of scientific knowledge, and will also consider issues such as the future of cancer care provision, access to innovation and the development of standardised treatments for patients.

Another major initiative is our medical-scientific programme, which represents our core activity. Currently being finalised, it aims to foster the vital crossovers between clinical research, translational research and patient care—all of which benefit from the knowledge gained when carrying out basic research.

The investment plan for the project was approved by the Board of Directors in 2015 and involves the Foundation contributing €91 million of its own funds and securing a further €60 million in the form of a bank loan. Some of this investment will go towards building renovation and new construction at all three of our sites. Supported by the International Scientific Advisory Board, last year also saw the go-ahead for the building of a major immunotherapy centre. Institut Curie has long been part of an internationally-renowned team of experts in immunology and this new facility will help us maintain our status in the field. The year also saw an increase in our activities with external groups. Several partnership agreements were approved and work was carried out on our international strategy—a key element of MC²¹ in terms of patient recruitment from abroad, cooperation and training.

Taken together, 2015 has clearly been a key year for Institut Curie. The first buildingblocks of MC²¹ have been laid, reflecting our determination to continue in the pioneering spirit of Marie Curie.

**MC²¹ PLAN**

**MEDICAL & SCIENTIFIC PROGRAMMES**

**BASIC RESEARCH**

**TRANSLATIONAL RESEARCH**

**CLINICAL RESEARCH**

**HOSPITAL PRACTICE**

**SCIENTIFIC PLAN**

**MEDICAL PLAN**

© Research Centre © Hospital Group
RESEARCH, PATIENT CARE, SHARING OUR KNOWLEDGE AND PRESERVING OUR LEGACY

OUR MISSIONS

RESEARCH
Harness the potential of transdisciplinarity, medical science and innovation to fight cancer.

PATIENT CARE
Put patients at the heart of everything we do: ensure we provide comprehensive care and tailored treatment.

SHARING OUR KNOWLEDGE AND PRESERVING OUR LEGACY
Gather and share expertise in order to further extend our knowledge of cancers and their treatment.

OUR INSTITUTIONAL PARTNERS AND SUPERVISORY BODIES
These include France’s Ministry of Social Affairs and Health, the Ministry of National Education, Higher Education and Research, along with the following organisations:

KEY FIGURES 2015

3,300 EMPLOYEES
2,100 within the Hospital Group, 1,100 at the Research Centre and 100 at head office.

79 nationalities represented among Institut Curie staff

About 1,000 students and post-doctoral researchers worked at the institute in 2015

86 RESEARCH TEAMS INCLUDING 6 NEW TEAMS

545 medical and scientific articles published in leading international journals (source: 2015 inCites)

190,000 donors

40 private-sector donors

1st IN FRANCE FOR BREAST SURGERY (ranking by France’s Le Point and L’Express magazines)

14,400 patients

42 R&D partnership contracts with companies

€ 370 M total budget for 2015

574 nationalities represented among Institut Curie staff

About 1,000 students and post-doctoral researchers worked at the institute in 2015

86 RESEARCH TEAMS INCLUDING 6 NEW TEAMS

545 medical and scientific articles published in leading international journals (source: 2015 inCites)

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40 private-sector donors

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14,400 patients

42 R&D partnership contracts with companies

€ 370 M total budget for 2015
T CELL ACUTE LYMPHOBLASTIC LEUKAEMIA
A new therapeutic lead
The Cellular Signalling and Oncogenesis Team has made significant progress in understanding the internal cellular mechanisms of patients suffering from T cell acute lymphoblastic leukaemia. The team has discovered a CXXR4 receptor which, if inhibited, would represent a new therapeutic strategy for treating this form of leukaemia.

PAEDIATRIC CANCERS
Seeking a better understanding of neuroblastoma recurrence in children
Our translational research team dedicated to paediatric tumours has made progress in studying the genetic characteristics of neuroblastoma and understanding their recurrence in young children. Working in collaboration with the University of Amsterdam (Netherlands) and the University of Pennsylvania (United States), their research has highlighted the activation of a RAS-MAPK signalling pathway – against which, inhibitors are already being used in hospitals. These results open up the possibility of clinical trials in the future.

BUILDING SARCOMA EXPERTISE
Dr Sylvie Bonvalot joins Institut Curie
The arrival of Dr Sylvie Bonvalot, a specialist in the treatment of soft tissue sarcoma, will further strengthen Institut Curie’s expertise in these relatively rare cancers, which require highly specialised multidisciplinary teams. Institut Curie was designated by the French National Cancer Institute (INCa) as a centre of competence within the country’s NETARC network, which is dedicated to soft tissue and visceral sarcoma. The institute has all the necessary skills for treating this type of cancer, which affects around 4,000 people in France every year.

TRAINING
Support for doctoral students
A new international doctoral programme has been created to fund 35 PhD students over a five-year period. Called IC-3iPhD, it was secured by a Cofund grant (within the project H2020-MSCA-COFUND-2014-SP), thanks to contributions from the European Commission, Institut Curie, the DEEP and Celtsisphybio PSL LABEX programmes, and industrial partners. IC-3iPhD will promote international, interdisciplinary, and inter-sector cooperation, and will also give students a chance to follow a career development plan during the course of their theses. They will also have access to seminars, international classes and training, including coaching in leading edge techniques.

STRATEGY
MC21: the Marie Curie 21st century project
Approved by the Board of Directors in June 2015, MC21 sets out Institut Curie’s strategic vision for the next five years. Its three main components are a medical plan, a scientific plan, and a medical-scientific programme. Its delivery will involve an ambitious programme of building construction and renovation at all three of the institute’s sites.

Nobel Prize
80th anniversary
The Curie Museum organised a conference in December 2015 to mark the 80th anniversary of the Nobel Prize for Chemistry being awarded to Irène and Frédéric Joliot-Curie, the daughter and son-in-law of Marie Curie, for their discovery of artificial radioactivity. The event, which featured documents, films and photographs from the archives, was an opportunity to look back at the research context and the story behind their discovery.

Training
Support for doctoral students
A new international doctoral programme has been created to fund 35 PhD students over a five-year period. Called IC-3iPhD, it was secured by a Cofund grant (within the project H2020-MSCA-COFUND-2014-SP), thanks to contributions from the European Commission, Institut Curie, the DEEP and Celtsisphybio PSL LABEX programmes, and industrial partners. IC-3iPhD will promote international, interdisciplinary, and inter-sector cooperation, and will also give students a chance to follow a career development plan during the course of their theses. They will also have access to seminars, international classes and training, including coaching in leading edge techniques.

Generosity
Charity wine auction supports Institut Curie
The world’s most famous vineyard sale for charity, the Vente des Hospices de Beaune, included Institut Curie among its beneficiaries in 2015. Held on 15 November, the 155th edition of the wine sale also supported France’s foundation for stroke research and the victims of the 13 November attacks in Paris. Claire Chazal, a well-known French journalist, acted as an ambassador for Institut Curie as she presided over the event, which raised €160,000 for the institute. The funds will be used to finance the planned centre for immunotherapy, one of the most promising research areas in oncology.
MEETING THE CHALLENGE OF CANCER RESEARCH

“Inspired by the spirit of ‘Curie-osity’, our teams tackled a range of scientific, technological and medical challenges in cancer biology over the course of 2015. Their achievements provided further confirmation of our international stature and our attractiveness to talented young researchers. The Research Centre’s scientific programme, an integral part of our MC²1 plan for the institute’s future, is delivered by teams working in close cooperation at each level of the organisation. Every individual is fully committed to the task in hand and to meeting the high expectations set by the centre, whether they are working in basic, translational or more applied research. Their work is shared with the Hospital Group to deliver the institute’s medico-scientific programme.”

GENEVIEVE ALMOUZNI, PhD
DIRECTOR OF THE RESEARCH CENTRE

INSIGHT

“Technology is evolving all the time, and our equipment is both high-performance and upgraded on a regular basis. This not only means that our expertise remains fully up-to-date and at the forefront of science, but also that we can offer the most advanced services available to researchers. They appreciate our platforms, because they can get results in the shortest possible time.”

VANESSA MASSON, RESEARCH ENGINEER AND BIOLOGIST AT THE RESEARCH CENTRE’S PROTEOMICS MASS SPECTROMETRY LABORATORY

When research combines excellence and interdisciplinarity

The Research Centre of Institut Curie is committed to pursuing excellence, through a combination of interdisciplinarity and openness. To achieve this, we have developed close working relationships with partners in academia and industry, and we seek external recognition of our work through endorsements and awards of excellence.

A range of different initiatives were carried out to this end during 2015:

• Supported by the National Research Agency and Sanofi, a new IMOCA research chair was created to develop new molecules in the promising field of immuno-oncology. Hosted by Institut Curie, the chair will strengthen our work in immunotherapy – a key feature of the MC²1 plan and the focus of a dedicated centre being opened in 2016.

• Promoting excellence in life sciences in Europe is the goal of EU-LIFE, an alliance of 13 European research centres. Geneviève Almouzni, PhD, director of the Research Centre at Institut Curie, was appointed its Vice Chair in 2015.

• Several scientists at Institut Curie received prestigious European Research Council grants, an acknowledgement of leadership in their fields and the quality of their projects. A Consolidator Grant was awarded to a chemist, Raphaël Rodriguez, PhD, for his work on interactions between small molecules and the genome. Professor Edith Heard, PhD, a specialist in epigenetics, received an Advanced Investigators Grant for her research on gene regulation. Meanwhile, two of our leading experts received “Proof of Concept” grants for their respective projects. Geneviève Almouzni, PhD, a specialist in the dynamics of the genome, received a grant for her work on ‘Epigenetic Profiling of Chemotherapy Efficacy’, while Vassili Soumelis, MD-PhD, a doctor-researcher in immunology, received his award for ‘DrugSynergy: A data-driven systems biology approach to optimize drug combination strategies.’

• To raise public awareness about the field of epigenetics, an art exhibition was held in Paris during May 2015 that gave artists the opportunity to interpret the plasticity of life. Entitled #Visions of epigenetics, the event was part of a promotional programme run by Epigenesis, an EU-funded network of excellence in epigenetics advancing toward systems biology, of which Institut Curie has multiple teams as members.

RESEARCH
COMPREHENSIVE CARE THAT MEETS THE NEEDS OF PATIENTS

The Hospital Group’s priorities are three-fold: to put the patient at the heart of everything we do, to provide comprehensive care, and to deliver access to quality care and treatment. Among the Group’s strengths is its development of outpatient surgery, a provision that was enhanced in 2015 by the renovation of buildings at our sites in Paris and Saint-Cloud. At the latter, the renovated areas have been designed to improve “forward movement” - from the patient’s arrival through to the operating theatre. “In Paris, an initial renovation phase was carried out in 2015, with the rest of the work due to be completed by 2017.” Meanwhile, 42 beds for patients having undergone surgery were withdrawn (17 in Paris and 25 in Saint-Cloud) in favour of an outpatient model of treatment. In 2015, the volume of outpatient surgery increased by between 48% and 58% over the previous year.

Immunotherapy: a rapidly developing discipline
A Hospital Group centre dedicated to the increasingly important field of immunotherapy is due to open in 2016. Institut Curie has already increased its expertise in the field with the arrival in October 2015 of Dr Emanuela Romano, who will head up the new centre. Dr Romano is a physician-scientist specialising in early-phase clinical trials in oncology and immunotherapy. A key discipline of the MC21 programme, the resources devoted to immunotherapy will comprise an immunology research laboratory, translational research teams and specialist physicians. A total of 10 clinical trials involving immunotherapy are currently underway at Institut Curie, including an international trial targeting patients with ENT cancers. Breast cancer and sarcoma are among the targets of other trials.

A centre for diagnostics and theranostics
In 2015, the Hospital Group opened a centre for diagnostic and theranostic medicine, providing a central point for the collection of specimens and bringing together all the elements needed for the successful diagnosis of cancers. The centre is also developing its activities in personalised treatment through theranostics, where the detection of biological markers can predict responses or resistances to treatment. Combining expertise in pathology, genomics and immunology, this centre is working closely with research in key specialist areas of the Hospital Group such as senology, ophthalmology, paediatrics, gynaecology and soft tissue sarcoma.

Development of paediatric clinical trials
Institut Curie’s certification as an INCa Early-Phase Clinical Trials Centre (CLIP2l) was renewed in 2015, strengthening the institute’s position in clinical research and its support for the development of new drugs. In addition, the certification was extended for the first time to the treatment of paediatric cancers.

INSIGHT
“Today, the treatment path is based on close cooperation between city and hospital authorities, ensuring that women suffering from breast cancer receive excellent care before, during and after treatment.”

PROFESSOR ROMAN ROUZIER, DIRECTOR OF THE SAINT-CLOUD HOSPITAL SITE MEDICAL DIRECTOR FOR THE SENOLOGY UNIT

14,400 patients currently on file, of whom more than 5,000 are new patients
1,631 patients, or approximately 15% of Hospital Group patients, participate in a clinical trial
2,105 staff in 10 departments and 14 medical groups
Preparing the talented people of tomorrow

Advanced training and education is the key to progress in research and science, and is also a priority for Institut Curie. The institute is investing in the future by welcoming talented young individuals onto its teams and by offering them a positive environment that encourages learning and innovation.

Institut Curie training

From 8 to 12 March, Institut Curie organised a course on Particle Therapy proposed by the European Society for Radiotherapy & Oncology (ESTRO). About 80 doctors from around the world attended the course on the use of particles in radiotherapy, drawing on the work of around a dozen international specialists. Among the topics covered were physics, technology and radiobiology, along with clinical protocols, proton beams and heavy particles in radiotherapy.

Meanwhile, at a ceremony in December 2015, Institut Curie honoured 48 PhD students who obtained their doctorate in 2015. Their graduation ceremony was also an opportunity to recognise how the institute’s laboratories had met the needs of students and also the quality of the supervision they had received during their theses.

The doctoral students, representing 14 nationalities, provided around 60 scientific articles. Eight of the students received grants from Institut Curie’s international doctorate programme.
THE CURIE MUSEUM:
WHERE HISTORY AND LEARNING MEET

“With its place in scientific history and its continued commitment to learning, the Curie Museum has an important role to play in spreading knowledge. The museum has three principle missions: preserving our heritage, studying the various collections and sharing scientific culture. Together, they enhance our reputation as ‘a place of knowledge production.’ As such, the museum is also an area of development within the MC21 plan for the institute’s future.”

RENAUD HUYNHN, CURATOR OF THE CURIE MUSEUM

With nearly 43,000 visitors between 2012-15, and a continuing rise in numbers, the Curie Museum enjoyed another successful year in 2015. Whether through scientific interest, or a desire to learn more about a family that has won 5 Nobel Prizes, the museum is a popular destination for students and tourists alike.

Among the projects undertaken was the conversion of the newspaper clippings from Marie Curie’s trip to the United States in 1921 into a digital form for researchers, with seven of the original 13 volumes being inventoried so far (more than 10,000 documents described). The work has been supported by grant funding from France’s Bibliographic Agency for Higher Education (ABES) and Institut Curie. Meanwhile, as part of a policy of broadening the scope of our cultural activities, the Curie Museum hosted a series of thematic visits and conferences in 2015 — all of which were highly successful. The museum also loaned objects and documents to external exhibitions that were organised as part of the World War I commemorations. Several other museums across European organised events that used items from the Curie Museum.

KEY DATES IN THE HISTORY OF INSTITUT CURIE

1903
Pierre and Marie Curie win the Nobel Prize for Physics, along with Henri Becquerel, for the discovery of natural radioactivity.

1909
The University of Paris and the Institut Pasteur decide to found the Institut du Radium. It comprised two sections: the Curie Laboratory, led by Marie Curie and dedicated to research in physics and chemistry, and the Pasteur Laboratory, under the direction of Dr Claudius Regaud, which studied the biological and medical effects of radioactivity.

1911
Marie Curie wins the Nobel Prize for Chemistry for her work on radioactivity. She is the only woman to have received this prestigious award twice.

1920
Creation of the Curie Foundation to finance the activities of the Institut du Radium and to contribute to the development of its therapeutic component.

1935
Irène and Frédéric Joliot-Curie win the Nobel Prize for Chemistry for having invented artificial radioactivity at the Radium Institute.

2010
Merger of Institut Curie with the Centre René Huguenin (Saint-Cloud, Hauts-de-Seine).

INFORMATION

250 REQUESTS PROCESSED IN 2015

50% OF REQUESTS COME FROM FRANCE, WHILE 8 FOREIGN RESEARCHERS USED THE ARCHIVES OVER PERIODS OF SEVERAL DAYS.

13,660
PEOPLE FROM AROUND THE WORLD VISITED THE CURIE MUSEUM IN 2015 (+10%)
THANK YOU

By working together, we are making progress in the fight against cancer.

To our 190,000 donors, testators, private and public partners, foundations, charities and other supporters. Thank you.

A STRONG FUNDING MODEL

Institut Curie benefits from a diverse array of revenue sources, affording the foundation the level of independence required to undertake innovative programs.

The Hospital Group is a private healthcare establishment recognised as serving the public interest. As a result of this status, the institute’s treatment, clinical research, training and innovation activities are primarily funded by the French social security system. This revenue is supplemented by income from other sources, such as billing for patients not covered by the social security system, out-of-pocket payments and outpatient day rates. The Hospital Group also receives clinical research and innovation funding from industrial companies, patrons, charitable organisations, public sector and semi-state organisations, and the generosity of the public.

The Research Centre is based on a very different funding model. It relies on research organisations like France’s CNRS, INSERM and universities to cover its personnel, operating and investment costs. In addition, the Research Centre receives an annual subsidy from France’s Ministry of Education, Higher Education and Research. Further funds, such as SiRIC and LABEX, are generated from competitive national and international calls for tender issued by France’s Investments for the Future programme, the Paris research university PSL, the European Research Council and other institutions.

The institute’s research programmes also rely on private-sector partners and the generosity of the public. Every year, Institut Curie makes a major effort to obtain the resources needed to carry out its missions from this diverse group of financial backers. For its part, the Curie Museum is financed by the CNRS and public donations.

€76.9 M
PRIVATE DONATIONS

ACKNOWLEDGEMENTS

RESOURCES AND GOVERNANCE
A VERY POSITIVE YEAR FOR INSTITUT CURIE AND THE FIGHT AGAINST CANCER

One of our main goals was to bring the Hospital Group’s budget back into balance, and the action taken since 2014 – increasing revenues, reducing personnel expenditure and improving our management of operating costs – has enabled us to achieve just that. Looking ahead, the deployment of MC², our plan for the institute’s future, has now been finalised. With its name based on the idea of ‘Marie Curie for the 21st century’ and a desire to continue in her pioneering spirit, the plan is designed to position Institut Curie as a comprehensive cancer centre of world standing. Approved by our Board of Directors, MC² will require investment at all three of our sites – Paris, Saint-Cloud and Orsay. The cost of construction, renovation and new equipment is expected to reach €153.6 million, in addition to existing expenditure, for the 2016–2021 period. Starting this year, we have already begun to provide this funding – in particularly favourable conditions. Specifically, we have been able to take advantage of: an upward trend in financial markets in early 2015 and an exceptional year for bequests, which have been used as security for €60 million worth of investments (as part of a projected €91 million contribution to MC² from the institute’s reserves), and a low interest rates for a €13 million loan (out of a budgeted debt of €60 million). I would also like to highlight the fact that ever more donors and testators showed their generosity in support of our fight against cancer during the course of 2015. Their support is always received with a profound sense of gratitude by everyone at Institut Curie.

Daniel Thierry

ACCOUNTING BALANCE SHEET

ASSETS (euros) 2015 2014
1. Subscribed capital unpaid 216,070,967 230,515,290
2. Fixed assets 1+2+2.3 277,388,669 218,798,225
2.1 Intangible fixed assets 2,701,778 1,555,485
2.2 Tangible fixed assets 274,686,891 217,242,739
2.3 Financial assets 5,974,520 10,161,580
3. Current assets 3.1 Stocks 323,599,322 244,383,650
3.2.1 Debtors due within one year 235,273,387 162,770,836
3.2.2 Debtors due after one year 92,316,000 51,611,814
3.3 Cash at bank and in hand 34,200,351 21,988,040
3.4 Other current assets 728,035 709,385
TOTAL ASSETS (1+2+3) 539,670,282 475,108,940

LIABILITIES (euros) 2015 2014
4. Capital and reserves 4.1 Subscribed capital 330,438,903 285,552,570
4.1.1 Subscribed capital 168,129,331 170,361,653
4.1.2 Reserves 172,309,572 110,190,917
4.3 Profit and loss brought forward from the previous years -42,387,580 39,642,087
4.5 Profit and loss brought forward for the financial year -43,593,871 7,081,535
5. Creditors 5.1+5.2+5.3+5.4+6.1 209,231,386 189,556,370
5.1.1 Long term non-bank debt 0 0
5.1.2 Long term bank debt 43,593,871 39,642,087
5.2.1 Short term non-bank debt 160,893,646 150,823,306
5.2.2 Short term bank debt 102,752,763 34,200,351
TOTAL LIABILITIES (4+5) 582,731,247 425,702,150

FINANCIAL INFORMATION

INCOME STATEMENT

Euros 2015 2014
Turnover 395,378,979 353,216,848
Variation in stocks 1,123,139 501,656
Other operating income 0 0
Gross operating income 396,502,118 353,718,504
Cost of materials and consumables 68,914,443 62,755,318
Other operating charges 103,917,523 96,816,083
Remuneration and charges (staff costs) 148,340,846 153,578,343
Gross Operating Profit or Loss (GOP/GOL) 75,289,236 40,539,760
Depreciation and value adjustments on non-financial assets 31,058,593 31,904,043
Operating profit or loss before financial results 44,230,643 9,635,717
Financial income and value adjustments on financial assets 11,332,296 8,801,646
Interest paid 7,981,252 3,111,576
Similar charges 0 0
Profit or Loss on ordinary activities 48,581,687 15,435,787
Extraordinary income 6,325,482 4,738,742
Extraordinary charges 21,088,040 0
Taxes on profits 0 0
Profit or Loss for the financial year (Net result) 47,583,873 7,081,535

INCOME AND EXPENDITURE ON RESEARCH AND CARE ACTIVITIES*

(Excludes the contributions of external organisations on behalf of Institut Curie, as part of our public interest mission, and which are not included in the accounts)

<table>
<thead>
<tr>
<th>Income</th>
<th>Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public health insurance funds</td>
<td>67%</td>
</tr>
<tr>
<td>Other income</td>
<td>11%</td>
</tr>
<tr>
<td>Private donations</td>
<td>2%</td>
</tr>
<tr>
<td>Research contracts</td>
<td>36%</td>
</tr>
<tr>
<td>Research organisations contributions</td>
<td>35%</td>
</tr>
<tr>
<td>Private donations</td>
<td>20%</td>
</tr>
<tr>
<td>Grant from the French Ministry of Research</td>
<td>9%</td>
</tr>
<tr>
<td>Other income</td>
<td>2%</td>
</tr>
</tbody>
</table>

• Hospital operations, including clinical research
• Research activities, including the research organisations contributions
OUR ORGANISATION


PRESENTATION OF THE INTERNATIONAL SCIENTIFIC ADVISORY BOARD (ISAB)

(SEE LIST OF MEMBERS ON PAGE 23, AT PUBLICATION DATE)

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