



# Annual Report 2021



Fondation

**ARTHRITIS**

Recherche & Rhumatismes





# 2021 Annual Report

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## DR OLIVIER COURTIN

**Chairman of the Arthritis Foundation**



“The Arthritis Foundation is devoted to ambitions that have always motivated me. I know a lot about bones and joints. My career as an orthopaedic surgeon and my fascination with

We also launched ambitious new calls for proposals in 2021, including:

- the Emergence grant, which aims to highlight new themes and/or technologies in the field of musculoskeletal disorders,
- and the Labellisé programme, which supported a collaboration with the prestigious Curie Institute on an excellent project on juvenile arthritis.

This was a great success.

science take concrete form in the Foundation’s initiatives. My ambitions are clear: helping to heal chronic inflammatory rheumatism, working to promote the osteoarticular field as a whole, creating lasting links between different fields within rheumatology to boost innovation, and raising awareness of the reality of these terribly disabling diseases, which affect patients of all ages, and even the very young.

A review of our activities in 2021 shows our determination to restructure in order to prepare for the future and accelerate research funding. After reviewing our scientific structure in 2020, we turned our attention to the internal organisation of the Arthritis Foundation in 2021.

This overall momentum has had a positive effect on our scientific output, including three patent submission for major discoveries in rheumatoid arthritis. These discoveries give us grounds for hope for a cure in the coming years through the CURE-RA project.

Together with the other scientific projects described in this report, we invested over €1.4 million in research in 2021. This dynamism was also reflected in all our events: a golf tournament, motor sport, our gala, Feet Week and the Together Against Rheumatism (ECR) day, which all aim to spread the organisation’s influence.

We have successfully strengthened our historical links with the whole community of researchers and patients through their associations. Now we must maintain this virtuous momentum and keep writing our story – the story of a Foundation that provides solutions for patients.

I hope you enjoy reading our annual report.”

## LIONEL COMOLE

**Spokesman and Chief Executive of the Arthritis Foundation**



“It’s time to look to the future. A family whose boldness and determination are equalled only by their interest in relations with others in the purest sense. This

The Foundation is the basis on which the Foundation looks to the future with a new, modern, concrete vision. Tomorrow the Arthritis Foundation will have an impact across the world with its research. Tomorrow the Arthritis Foundation will shine forth through its donors, its faithful partners and other investors with a passion for science and human health.

it was behind the funding of the rheumatoid arthritis diagnostic test now used worldwide. It also contributed to the emergence of the revolutionary new treatments known as ‘biotherapies’ alongside Jean-Michel Dayer, the brilliant Swiss researcher. It backed the first network of excellence in arthritis, which aims to assemble the best researchers, bring together the best ideas and generate solutions. These discoveries and initiatives have had a profound and lasting impact on treatment for these chronic conditions that are so socially and physically disabling.

The Arthritis Foundation is imbued with deep-rooted values that stem from its creators. An outstanding entrepreneur, succeeded by his equally committed children and now his

grandchildren. A family whose boldness and determination are equalled only by their interest in relations with others in the purest sense. This is the basis on which the Foundation looks to the future with a new, modern, concrete vision. Tomorrow the Arthritis Foundation will have an impact across the world with its research. Tomorrow the Arthritis Foundation will shine forth through its donors, its faithful partners and other investors with a passion for science and human health.

For now, it is also time to look back at these vital years for the Foundation. A new scientific strategy, redesigned calls for proposals, a programme of training for researchers and the integration of sponsorship to place our ambition on a long-term footing. The year 2021 was still marked by the health crisis we have experienced. The year 2022 will see the completion of our restructuring as we accelerate towards 2030.

Much work remains to be done, but our teams, donors, researchers and partners are ready. Together, an extraordinary destiny awaits us. In the meantime, here is a very positive review of 2021, which gives us every reason for hope. Enjoy the read.”



# 01. The Foundation in brief

## OUR MISSIONS

Rheumatic and musculoskeletal disorders include over 150 different pathologies. They affect 20% of the population at all ages. A private organisation serving the public interest has been at the heart of research for over 30 years: the Arthritis Foundation. The Arthritis Foundation is the leading source

of private funding to support the emergence of high-quality French research into rheumatism and musculoskeletal disorders (MSDs). It funds research into the causes and consequences of these diseases, which can be disabling for adults and children alike. It encourages the discovery of innovative therapies.



### Funding bursaries

to attract young researchers and support the research of tomorrow.



### Funding research projects

conducted in close collaboration with academic research teams, public or private research organisations and the French Society of Rheumatology (SFR).



### Stimulating discovery

and evaluation of innovative therapeutic targets to combat these diseases.



### Contributing to information

about these diseases, as well as their prevention and improving the quality of life of those suffering from them, particularly by working closely with the patients' associations represented within the Foundation.



### Educating health professionals

to promote the swift management of these conditions, before the onset of irreversible disabilities.



### Promoting and supporting research into MSDs

and in particular the most severe joint diseases, such as chronic inflammatory rheumatism and any other illnesses involving similar mechanisms, as well as osteoarthritis.

## OUR COMMITMENT

### ACCELERATING RESEARCH

The Foundation makes a concerted effort to support translational research. This research aims to **accelerate the process of converting the core data gathered into clinical evidence**. The Foundation offers support to mixed teams of researchers and clinicians, to promote innovative projects, both to develop new diagnostic tools

and to discover new treatments for MSDs. The clinical aspect of the research is also supported by encouragement to **develop epidemiological studies** or innovative **clinical trials**.

### SEEING PATIENTS AS INDIVIDUALS

In line with its new slogan **"Impact for patients"**, the Foundation aims to support more innovative research that will quickly translate into benefits for patients.

This will involve combining scientific excellence with **more determined consideration** for the unmet needs of patients with MSDs.

### 100% OF DONATIONS COLLECTED FROM THE PUBLIC GO TO RESEARCH

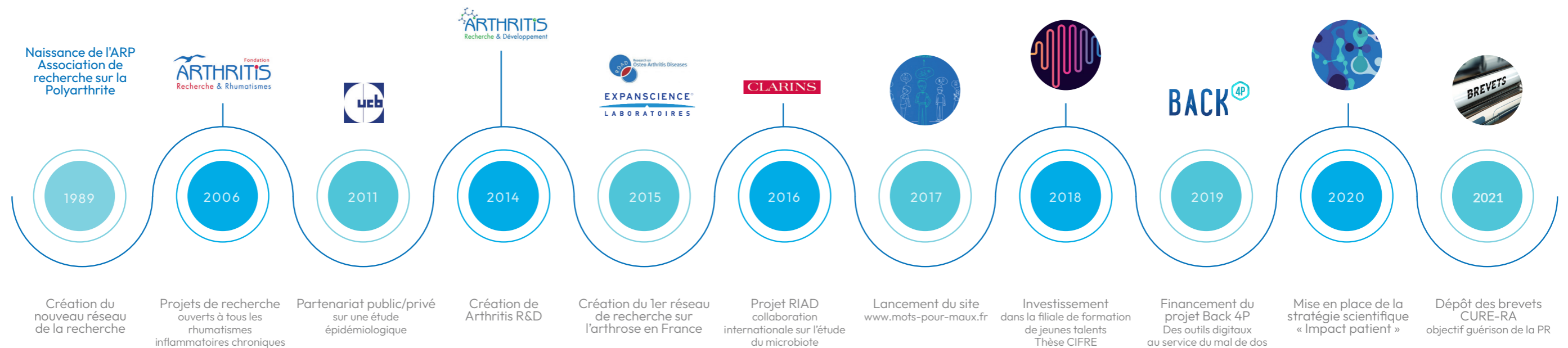
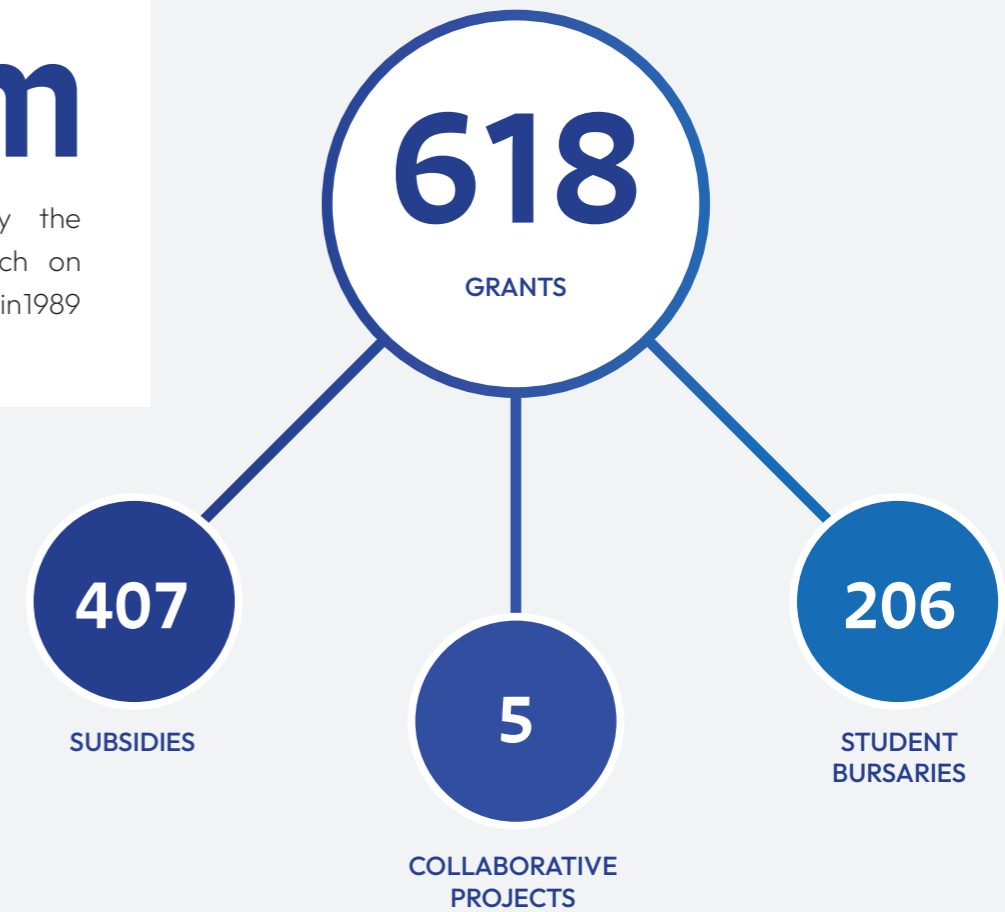
Thanks to the whole Courtin family and the backing of the Clarins company, **all donations from the public** are dedicated to fulfilling the Foundation's mission. The sponsorship in kind

from Clarins includes accommodation, postage, IT, voluntary work from many employees and operating expenses (including the salaries of the permanent staff).

## SUPPORTING RESEARCH FOR 30 YEARS

# €42m

has been invested by the Foundation into research on MSDs since it was founded in 1989



# WHAT ARE MSDS?

Rheumatic and musculoskeletal disorders (MSDs) constitute a group of over 200 illnesses and syndromes that mostly affect the joints but also the bones, internal organs, muscles and associated tissues such as tendons and ligaments. MSDs can start in childhood or early adulthood, meaning that patients often have to endure these conditions for decades, leading to a gradual decline in their psychological and physical state and to social isolation. The impact seen with certain chronic MSDs is accentuated with ageing, as well as certain aggravating lifestyle factors such as obesity and reduced physical activity. **Everyone is affected.**

## MSDS, PUBLIC HEALTH PRIORITY

Rheumatic and musculoskeletal disorders (MSDs) have a considerable clinical, human and economic impact. In an IFOP survey, "The French and Rheumatism", 93% of French people questioned reported that they had experienced joint pain.

### THE HUMAN BURDEN OF MSDS



Joint pain has a significant impact on the daily lives of people with MSDs. These conditions have particular repercussions for **quality of sleep** and capacity to engage in leisure activities. According to GBD 2017 estimates, MSDs represent **10.9% of the overall burden of illness in France**, in third place after cancer and cardiovascular diseases. The burden of MSDs tends to be underestimated, due partly to the low level of mortality associated with these diseases. Yet MSDs are the **leading cause of disability in Europe and in France.**

### PRODUCTIVITY LOSS DUE TO MSDS



Functional limitation, chronic pain, fatigue and the psychological impact of MSDs are largely responsible for the considerable burden on society in terms of **lost productivity**. MSDs are **the main cause of early retirement** among European employees. In addition, MSDs constitute the main medical reason for long-term absence from work and the second-biggest cause of absences of less than two weeks, after respiratory disease.

### THE ECONOMIC BURDEN OF MSDS



In Europe, MSDs represent an economic burden estimated at **€240 billion per year**, constituting the highest cost for European health systems. Specific anti-rheumatism drugs are the second biggest medication class in terms of spending growth for the health insurance system in France.



GIVEN THEIR ECONOMIC AND SOCIAL IMPACT AND CONSEQUENCES, RESEARCH INTO MSDS SHOULD BE SEEN AS A REAL PUBLIC HEALTH PRIORITY.

## OUR STRATEGY & PRIORITIES

The Foundation's scientific strategy focuses on the research themes that it sees as priorities for the next five years. These guide the choices to be made about the main MSD research challenges according to the Foundation's resources, taking into account the state of progress in knowledge about each question. The Foundation will take a particular interest in projects targeting breakthrough technologies and innovative approaches.

**PRIORITY 01**

Exploiting the conceptual and technological revolutions to make progress in the understanding of MSDs

**PRIORITY 02**

Preventing the emergence of MSDs and establishing earlier diagnosis

**PRIORITY 03**

Seeing patients as individuals in order to personalise treatment

**PRIORITY 04**

Identifying and understanding better the co-morbidities associated with MSDs

**PRIORITY 05**

Understanding the mechanisms of pain and fatigue in MSDs

## 2030 VISION

THE ARTHRITIS FOUNDATION'S AMBITION FOR 2030:

**CURING**  
RHEUMATOID  
ARTHRITIS

**SIGNIFICANTLY**  
**REDUCING JOINT PAIN**  
FOR ALL MSDS

**UNITING** THE PLAYERS  
IN THE FOUNDATION'S  
ECOSYSTEM AS  
COMMITTED  
INFLUENCERS

## 2021 HIGHLIGHTS

# 02. Achievements in 2021

### January



Welcoming a scientific project manager responsible for collaborative projects

### February

CLARINS

Introduction of "checkout" donations on the Clarins.fr website, in development on European e-commerce sites

### March



New clinical trials dedicated to MSD progress on our website

### April



Introduction of the new scientific strategy and funding programmes for 20-25

### May



Launch of the back-4p.org site for digital tools to help with back pain

### June



Contribution to the 12h de Magny-Cours motorbike race with the influencer Villebrequin to raise public awareness of MSDs

## RESEARCH



The health situation delayed scientific projects. Consequently, some projects agreed in 2019 ended in 2021 and some projects agreed in 2020 will end in 2022.

## OUR TRAINING PROGRAMME

The Arthritis Foundation funding scheme places core emphasis on promoting the development of MSD research and shoring up the critical mass of researchers in the field. As part of the CIFRE-Arthritis R&D doctoral thesis grant programme, it funds and co-

supervises scientific theses on MSD via Arthritis R&D in partnership with an academic research laboratory through an industrial research-based training agreement (CIFRE).



**€120,000 invested in 2021**

### Towards treatment based on tolerisation

UNDERSTANDING HOW ANTIBODIES SPECIFIC TO RHEUMATOID ARTHRITIS ARE PRODUCED IN ORDER TO DEVELOP NEW TREATMENTS



### Marie Hémon

Arthritis R&D doctoral student  
Research unit: INSERM UMRs 1097  
Supervised by: Isabelle Auger and Nathalie Lambert

ACPAs are autoantibodies produced in around 75% of patients with RA and are involved in triggering the illness. The HLA-DRB1 gene is involved in the mechanisms leading to ACPA production. This project seeks to determine the influence of the HLA-DRB1 gene in ACPA production based on a hapten/carrier model in transgenic mice.

The project represents major progress in understanding the triggering of RA in individuals with a

high genetic risk and could contribute to preventing the disease in these individuals by modulating the immune response with a treatment based on tolerisation that would block ACPA production before RA is triggered.

### July



Launch of calls for proposals – Labellisé and Emergence programmes

### August



Integration of a doctoral student at Arthritis Research & Development

### September



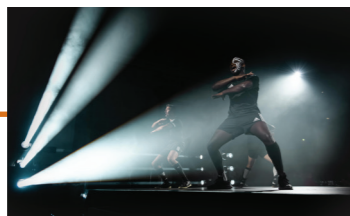
- Launch of Feet Week by Arthritis
- Creation of a Sponsorship and Philanthropy department within the Foundation
- Welcoming a digital communication officer to monitor the Foundation's social media

### October



- Webinar “Together against rheumatism” on the theme of innovative new therapies
- Arthritis Golf Cup at La Boulie to raise funds for MSD research

### November



Innovation Evening on the theme of sport, an Arthritis Foundation charity gala

### December



- Jacques Courtin Day, a scientific event dedicated to the coordinators of Arthritis-funded projects
- Selection of four research projects by the Scientific Board following a call for proposals





## Towards the discovery of new biological pathways and therapeutic targets

### GENETIC CHARACTERISATION OF FAMILIAL FORMS OF LUPUS

#### Quentin Reuschlé

Arthritis R&D doctoral student  
Research unit: Inserm U1109  
Supervised by: Pauline Soulas-Sprauel



The pathophysiology of lupus is complex and not fully understood. The goal of this project is to characterise familial forms of lupus to better understand the pathogenesis of the disease and define general molecular concepts of tolerance/immune dysfunction in humans. A better understanding of the pathways involved in the pathogenesis of lupus could help identify biomarkers and/or new therapeutic targets to improve and optimise patient care.

## Towards the discovery of new therapeutic targets

### WHY ARE WOMEN MORE LIKELY TO DEVELOP AN AUTOIMMUNE PATHOLOGY: UNDERSTANDING SEX BIAS IN SYSTEMIC LUPUS ERYTHEMATOSUS

#### Charles-Henry Miquel

Arthritis R&D doctoral student  
Research unit: Inserm U1109  
Supervised by: Jean-Charles Guéry



The greater likelihood in women of developing lupus could be explained by X chromosome gene dosage, which is regulated by a mechanism of random inactivation of one of the two X chromosomes (X chromosome inactivation or XCI). The TLR7 gene, which is coded on the X chromosome and whose role in SLE has been clearly established, escapes the XCI mechanism and could favour the emergence of ABC B lymphocytes. This project aims to study the impact of TLR7 escaping XCI on the pathophysiology and clinical manifestations of SLE. It could provide a better understanding of the pathophysiology of autoimmune diseases in general, but it could also have diagnostic and prognostic implications in SLE and help to identify therapeutic targets and personalise treatment.

### ROLE OF miRNAs IN THE PATHOPHYSIOLOGY OF ARTHRITIS IN PATIENTS WITH FAMILIAL MEDITERRANEAN FEVER

#### Norma Saad

Arthritis R&D doctoral student  
Research unit: INSERM UMR1183  
Supervised by: Isabelle Duroux-Richard



Familial Mediterranean fever (FMF) is a rare autoinflammatory disease transmitted through autosomal recessive inheritance and caused by mutations in the MEFV gene. It is characterised by recurrent episodes of fever and acute inflammation of the serous membranes (synovium, peritoneum, pleura). The goal of my thesis is to test the hypothesis that miRNAs target the MEFV gene and to study their involvement in the pathogenesis of the disease. The project will:

1. provide important, novel data about inflammation in FMF,
2. explain the variability of the penetrance of FMF mutations,
3. clear the way towards new therapeutic avenues, and
4. identify new prognostic biomarkers.

## FUNDING FOR COLLABORATIVE PROJECTS

€311,500 invested in 2021

### BACK-4P PROJECT

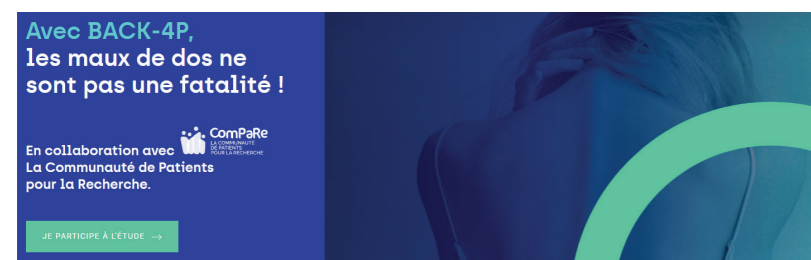
ARTIFICIAL INTELLIGENCE TO HELP PATIENTS WITH LOW-BACK PAIN



Low-back pain, also known as lumbago, is a major public health problem that is increasing with the ageing population. Over nine million people in France currently suffer from chronic low-back pain, and worldwide this type of pain is the leading cause of disability and sickness absence. The existing treatment recommendations consist of rehabilitation exercises, but sadly not all patients have access to appropriate programmes supervised by health professionals.

The BACK-4P project has three main aims:

- To better understand the characteristics of patients and the evolution of their chronic low-back pain by putting together an e-cohort\*
- Developing a predictive tool able to identify patients at risk of adverse development (pain, absenteeism, persistent disability)
- Developing a personalised coaching app for smartphones to change patient behaviours and beliefs in order to prevent symptoms from worsening.



The project, coordinated by Dr Christelle Nguyen (AP-HP), is being developed in partnership with Professor François Rannou's team at Cochin Hospital (AP-HP), the Sorbonne Paris Cité epidemiological and statistical research centre (INSERM) led by Professor Philippe Ravaut, and Professor Jean-Claude Martin's team at LIMSI (Computer Science Laboratory for Mechanics and Engineering Sciences) (CNRS).

To enable the development of these innovative digital tools, the Arthritis Foundation, the French Rheumatology Society (SFR) and Malakoff Humanis are providing €1 million of funding for the project over three years.

\* e-cohort: E-cohort studies involve observing the incidence of health events over time (disease, biomarkers, pain etc.) within a defined population using standardised online questionnaires on a secure platform.

#### In short

- The goal is to develop a predictive tool able to identify patients at risk of adverse development (pain, absenteeism, persistent disability).
- The project draws on a network of three multidisciplinary research teams.
- Arthritis R&D, the French Rheumatology Society (SFR) and Malakoff Médéric Humanis are providing €1 million of funding for the project over three years.

### MIRIAD PROJECT

ROLE OF THE INTESTINAL MICROBIOTA IN CHRONIC INFLAMMATORY RHEUMATISM



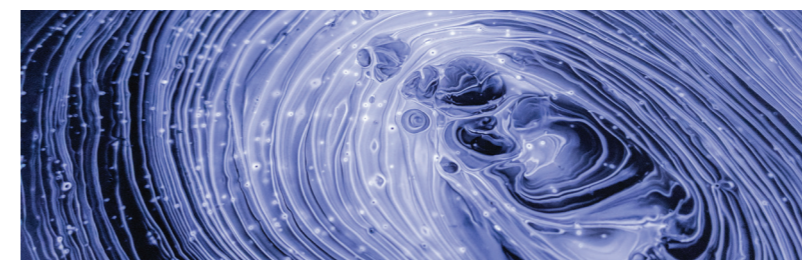
Two-year extension to the project  
The health situation forced us to postpone the clinical for two years



Spondylarthritis (SpA) is the most common form of chronic inflammatory rheumatism, affecting between 0.4 and 1% of the general population. While the role of certain genetic factors (HLA-B27 antigen) in triggering SpA has been described, the role of environmental factors such as the intestinal microbiota, commonly known as the "intestinal flora", is considerably less well known. An imbalance between bacterial populations in the intestine (dysbiosis) could be involved in the emergence and/or maintenance of chronic inflammatory pathologies such as SpA.

The MIRIAD project has three main aims:

- Studying the links between intestinal dysbiosis, intestinal inflammation and joint inflammation in SpA
- Establishing a signature for intestinal dysbiosis over the course of the disease
- Obtaining a proof of concept for faecal microbiota transplantation (healthy donors) as a therapeutic option for SpA



The study aims to identify biomarkers as diagnostic and predictive tools, including response to treatment and medium-term prognosis.

The project, coordinated by Professor Maxime Breban (INSERM, University of Versailles Saint-Quentin), is being developed in partnership with the teams led by Professor Stanislav Dusko Ehrlich (INRA, Jouy-en-Josas) and Professor Dirk Elewaut (Ghent University Hospital, Belgium). The Arthritis Foundation and the Clarins group are funding the project with €800,000 over three years.

#### In short

- The goal is to identify SpA biomarkers as tools for diagnosis and prediction.
- The project is coordinated by three research teams in France and Belgium.
- Arthritis R&D and the Clarins group are funding the project with €800,000 over three years.

## FUNDING FOR COLLABORATIVE PROJECTS

€478,700  
invested in 2021



### CURE-RA PROJECT

A NEW TREATMENT FOR RHEUMATOID ARTHRITIS?



Rheumatoid arthritis is associated with the presence of characteristic autoantibodies, which currently help to establish a diagnosis of the disease in its early stages but could constitute a therapeutic target in the future. Current treatments, such as TNF inhibitors, act on the inflammation rather than its cause and need to be taken regularly over a long period. The Cure-RA project aims to develop a treatment targeting the causes of the disease with the goal of long-term remission or even cure.

The Cure-RA project is divided into three phases over three years:

- Developing research tools: antibodies, peptide constructs, cell lines
- In vitro proofs of concept demonstrating the action of drug candidates on autoantibodies
- In vivo proofs of concept demonstrating the same action in animals

The project is coordinated by three academic teams consisting of rheumatologists or biologists and scientific researchers with complementary skills working together as a consortium:

- **Professor Guy Serre:** Director of the Epithelial Differentiation and Rheumatoid Autoimmunity Unit (Inserm UMR 1056) and Consultant at the Cellular Biology Laboratory at Toulouse University Hospital
- **Professor Christian Jorgensen:** Director of the Regenerative Medicine and Biotherapy Research Institute (Inserm UMR 1183) and Head of the Osteoarticular Disease Clinical Unit and the Biotherapy Department at Montpellier University Hospital
- **Dr Pierre Martineau:** Functional screening and cancer screening team at the Oncology Research Institute (Inserm UMR 1194) in Montpellier

The project is coordinated and funded with €3 million by Arthritis R&D, a subsidiary of the Arthritis Foundation, which receives support from the Banque Publique d'Investissement. An additional budget of €10 million will be necessary thereafter for industrial transfer and to conduct the first human trials in three to five years.

This new therapeutic concept could be applied to other autoimmune diseases mediated by autoantibodies.

#### In short

The Cure-RA project aims to develop a treatment targeting the causes of RA with the goal of long-term remission or even cure.



The project is coordinated by three academic teams.



The project is funded with €3 million by Arthritis R&D with support from the Banque Publique d'Investissement.

## SCIENTIFIC ACTIVITIES

### CLINICAL TRIALS

In accordance with its 2020–2025 scientific strategy, the Arthritis Foundation has set itself the task of reinforcing its scientific communication strategy to better inform patients and the scientific community about MSD clinical research in progress.

To communicate the most recent data and the most relevant results of current research, the Foundation is setting up an information portal on MSD clinical trials with the aim of:



- enabling patients to play a more active role in their own health, by participating directly in trials in progress or finding out about the latest research on their conditions and potential new therapeutic options
- accelerating the creation and marketing of new treatments and improving existing treatments
- facilitating patient access to new therapeutic innovations

### TOGETHER AGAINST RHEUMATISM



In 2014, Together Against Rheumatism (ECR or "Ensemble contre les rhumatismes", <https://www.ensemblecontreslesrhumatismes.org/fr>) joined the international World Arthritis Day movement. This initiative aims to provide reliable information corresponding to patients' needs and to promote medical research in rheumatology to patients, the public, institutional decision-makers and politicians. The ultimate goal is to contribute to the development of new therapeutic solutions for bone and joint diseases, which affect a quarter of the French population. In 2021, a web conference was organised on the theme of "New therapies for chronic inflammatory rheumatism", chaired and presented by Professor Jean Sibilia, a university professor, hospital rheumatology consultant and dean of the Strasbourg medical faculty. Fabienne Lacombe and Bénédicte Charles, representatives of associations, provided patients' viewpoints about their treatment and the management of their symptoms.

### JACQUES COURTIN DAY



Organised every year, this day brings together the coordinators of all the projects funded by the Foundation during the current year. Each researcher gives an oral presentation of their work to the Scientific Board, the Board of Directors and the other participants. For the researchers present, Jacques Courtin Day is a unique opportunity for scientific discussion in a very welcoming environment, leading to collaborations and exchanges between research teams. In 2021, the event took place on 25 November at the Clarins Group headquarters.

# AWARENESS AND FUNDRAISING

## AWARENESS-RAISING EVENTS

### Innovation Evening – Arthritis blows the starting whistle!



Every year, Dr Olivier Courtin and his family welcome you to a prestigious venue in Paris for an exceptional evening together to benefit the Arthritis Foundation.

Unlike conventional charity galas, the Innovation Evening is an immersive awareness event.

No fewer than 350 prestigious guests experience an evening of artistic

productions, performances of all kinds and the award of the grand innovation prizes presented to the year's most prodigious inventors and researchers. In 2021, the Innovation Evening on the theme of sport took place on Monday 22 November 2021.

### Feet Week by Arthritis



**An easy, fun, community-spirited challenge: walking against disability!**

To celebrate disability week, the Arthritis Foundation launched a new sporting challenge with a sense of solidarity for Clarins staff and suppliers.

It was a week-long online inter-company challenge aiming to educate

employees about disability, the importance of physical activity and the Arthritis Foundation.

Feet Week by Arthritis reinvents preventative healthcare, using competition, community and digital technology.

### Arthritis Golf Cup



**These competitions are good for your health and your family's health.**

Launched in 2012, the Arthritis Golf Cup is a charitable golf competition to raise funds for the Arthritis Foundation. It is aimed at anyone who wants to get involved in promoting health with an enjoyable day of sport. Every year, the cycle of two

competitions collects money and raises awareness about rheumatism and musculoskeletal disorders (MSDs). In 2021, the Arthritis Golf Cup was held at RCF La Boulie.

### Charity merchandise



Every year, the Arthritis Foundation and the Courtin girls come together to launch a charity merchandise website and the Clarins e-commerce site.

In summer 2021, the Foundation

partnered with the French brand Atelier de Famille to design and create four exclusive bracelets in summer colours.

These stylish bracelets were sold for €8 to raise funds for medical research.

### Arthritis Solidinvest



**Your financial investments support the Arthritis Foundation**

In late 2017, the Arthritis Foundation came together with Meeschaert to create a new benefit-sharing fund accessible to institutions and individuals. The Arthritis Solidinvest

fund is an ethical investment for all investors who want to support the Arthritis Foundation. Arthritis Solidinvest is a mutual fund for socially responsible investment (SRI).

## Motor sport



### A tool for communication and unity

Thanks to a treatment emerging directly from research, the Foundation's spokesman and chief executive has been able to resume high-level sport. He is the ambassador for a car brand and has taken part in World Championship events in the colours of the brand and the Foundation.

A source of hope, he shows that you can make your dreams a reality when research produces effective solutions. He now uses motor sport to bring the public and senior executives together. He shares a passion for passing on the values of the Foundation.

## Mini Transat 2021



### The challenge of our ambassador, Victor

Victor, a 30-year-old French Canadian, committed himself once again to research into joint diseases by entering the Mini Transat 2021 in the Foundation's colours. The Mini Transat is a solo unaided sailing race for boats measuring 6.5 metres.

Victor's plan was to use the Mini Transat to collect money to provide three years of funding for the systemic lupus erythematosus research project conducted by our young researcher Charles-Henry Miquel, who is working on a CIFRE thesis with Arthritis R&D.

## Tonic oil



Every year, for every Tonic\* oil sold, Clarins supports the Arthritis Foundation by funding research programmes into inflammatory rheumatism.

The brand pursues this commitment

unfailingly to make life more beautiful.

\* This oil is a cosmetic product. It has no therapeutic effect against rheumatism.

# AWARENESS AND FUNDRAISING

## THE ARTHRITIS FOUNDATION IN THE PRESS:



### Le Figaro Santé

October / November / December 2020

### Le Point

September 2021



### Sciences et Avenir

June 2021

## Arthritis Foundation publication

Awareness campaign distributed in the press

in 2021



## 03. The life of the Foundation

# GOVERNANCE & TEAMS

The Foundation is led by a Board of Directors that delegates the execution of its decisions to its office. It has a scientific department consisting of the Scientific Board (which analyses applications submitted to the Foundation) and the Research

Strategic Direction Committee, which makes proposals in terms of research strategy.

## THE BOARD OF DIRECTORS

### Office

#### **OLIVIER COURTIN**

Chairman  
*Chairman of the Clarins Board*

#### **SYLVIE HENON-BADOINOT**

Vice Chairman  
*Former Vice Chairman of Bacardi Martini Europe and a director of several NGOs*

#### **PRISCA COURTIN**

Representative of the Courtin family  
*Representative of Holding Famille C*

#### **FRANCIS BERENBAUM**

Secretary  
*Head of the Rheumatology Department at Saint-Antoine Hospital and Team Leader of INSERM CDR "Joint pathologies associated with metabolic diseases and age"*

#### **CHRISTIAN PETIT**

Treasurer  
*Chairman - Yambo Management*

### College of qualified individuals

#### **MAXIME BREBAN**

Professor  
*Ambroise Paré Hospital - Boulogne Billancourt*

#### **CORINNE MICELI**

Professor  
*Cochin Hospital - Paris*

#### **PHILIPPE DEJARDIN**

Health consultant  
*Health Expertise Consulting*

#### **CHRISTIAN JORGENSEN**

Researcher  
*Director of the Regenerative Medicine and Biotherapy Research Institute (IRMB)*

#### **RÉMI GAMMAL**

Company director  
*Founder of Impact Groupe*

## Government representative

**LAURENCE BOUQUET**  
Government commissioner

## Partner associations

**LAURENT GRANGE**  
Chairman of AFLAR  
*Member of the associations group for AFLAR*

**THIERRY VANNIER**  
Secretary and Treasurer of ACS  
*Member of the associations group for ACS*

## RESEARCH STRATEGIC DIRECTION COMMITTEE

**HANG KORNG EA**  
Rheumatologist  
*APHP, Paris*

**FLORENCE APPARAILLY**  
Research director  
*INSERM Montpellier*

**SALEM CHOUAIB**  
Researcher  
*Gustave Roussy Institute, Villejuif Gulf Medical  
University, United Arab Emirates*

**NATHALIE ISSACHAR**  
*Clarins Group, Paris*

**DAVID MOULIN**  
Researcher  
*University of Lorraine, Nancy*

**MARC BONNEVILLE**  
*Institut Mérieux, Lyon*

## SCIENTIFIC BOARD

**ISABELLE AUGER**  
Researcher  
*INSERM UMRs 1097, Marseille*

**NATACHA BESSIS**  
Researcher  
*INSERM UMR 1125, Paris*

**CLAUDINE BLIN**  
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Biotherapy, Saint-Eloi Hospital, Montpellier*

**HUBERT MAROTTE**  
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*Health Innovation Campus, Saint-Priest-en-Jarez*

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Clinical researcher  
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Cellular Biology Federative Institute,  
Purpan Hospital, Toulouse*


**FRÉDÉRIQUE BLANCHARD**  
Clinical researcher  
*INSERM UMR1238, Nantes*

## THE TEAM



**Chief Executive and Spokesman**  
Lionel Comole

### COMMUNICATION DEPARTMENT



**Communication Manager**  
Claire Gibert



**Internal Communication Manager**  
Marion Sauvageot



**Digital Communication Officer**  
Tanguy Mur

### SPONSORSHIP & PHILANTHROPY DEPARTMENT




**Sponsorship & Partnership Director**  
Christelle Zeller



**Sponsorship Officer**  
Maxime Cassaud

### ADMINISTRATION DEPARTMENT



**Administration Manager**  
Sabrina Glain

## ARTHRITIS RESEARCH & DEVELOPMENT

In 2014, the Arthritis Foundation created the company Arthritis Research & Development, with capital of €750k. Its primary missions are to:

### Structure

rheumatology research into French networks of excellence and promote translational research to support patients, ideally through collaboration with European teams.

### Increase

the human capital of rheumatology researchers.

Arthritis R&D maintains a continuous pipeline of translational research projects. Funding solutions are designed individually for each project in order to ensure a continuum from research discovery to patient application.


### Company management

**JONATHAN ZRIHEN**  
Chairman

**LIONEL COMOLE**  
Chief Executive

**YOSRA MESSAI**  
Scientific Director

### ARTHRITIS RESEARCH & DEVELOPMENT



**Scientific Director**  
Yosra Messai



**Head of scientific projects**  
Galia Snoubra  
Provider from AIXIAL skills sponsorship



**CIFRE thesis Arthritis R&D**  
Marie Hémon



**CIFRE thesis Arthritis R&D**  
Quentin Reuschlé



**CIFRE thesis Arthritis R&D**  
Charles-Henry Miquel



**Postdoctoral researcher, Cure-RA project**  
Eve Combes

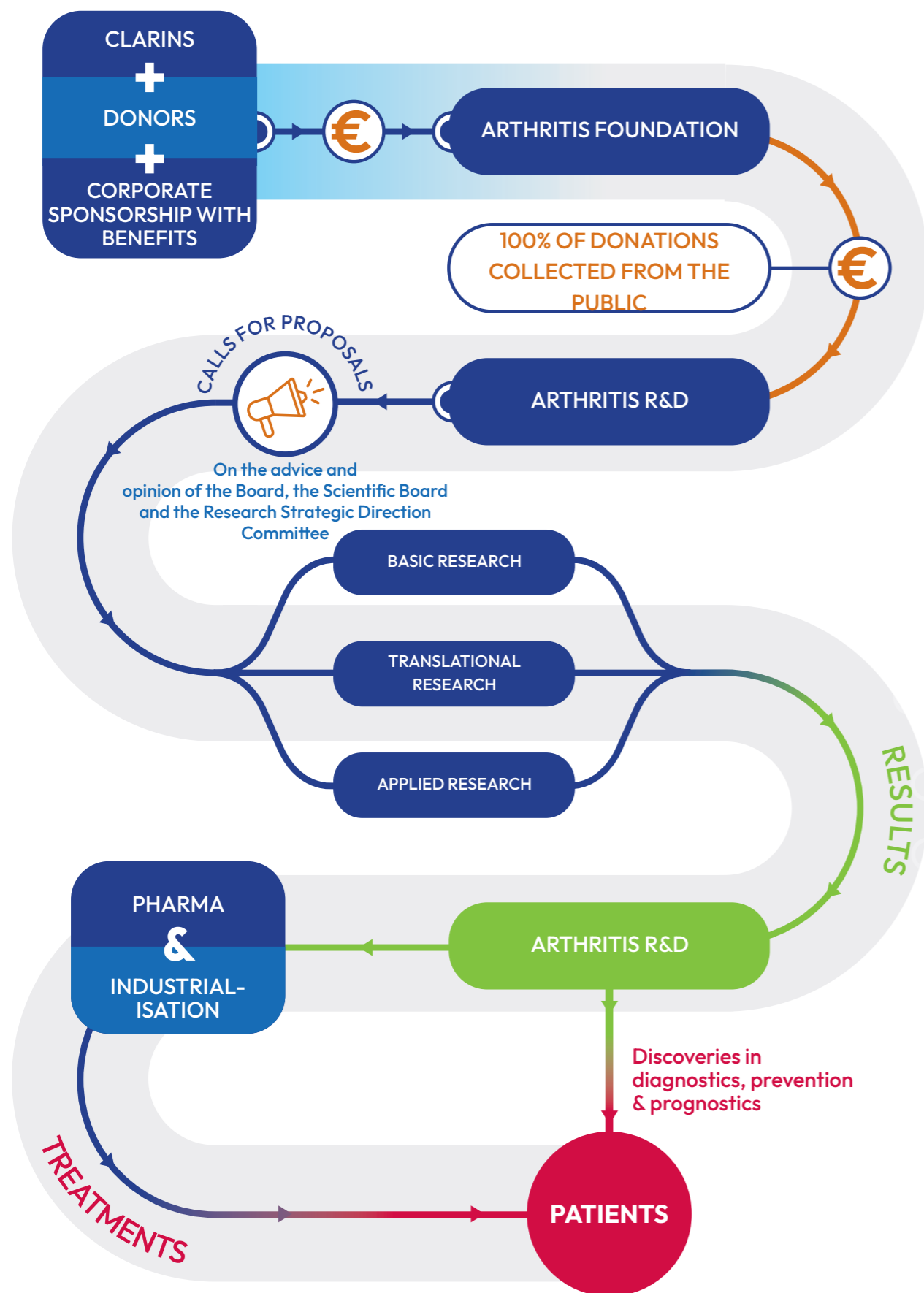


**Postdoctoral researcher, Cure-RA project**  
Nerea Allende Vega



**CIFRE thesis Arthritis R&D**  
Narma Saad





## SPONSORSHIP & PHILANTHROPY

To achieve its goals, the Arthritis Foundation strengthened its teams and created a Sponsorship & Philanthropy unit in 2021.

Philanthropy unit will deploy an ambitious sponsorship programme with the goal of raising €20 million by 2030.

From the beginning of 2022, the Sponsorship &

By collecting €20 million from major donors, the Arthritis Foundation will give the best researchers the means to make significant progress, with a focus on three main areas:

- rheumatoid arthritis, with a global innovation in specific biotherapies
- spondyloarthritis, with major discoveries in the role of the microbiota in the body's immunity,
- new personalised solutions provided by artificial intelligence for chronic low-back pain.

This major campaign will also top up the critical mass of researchers by training new talents, students and graduate students to become tomorrow's Nobel winners by providing concrete solutions for recovery.

The Arthritis Foundation wishes to strengthen still further its links with each of its partners and donors. Christelle Zeller and Maxime Cassaud have joined the Arthritis Foundation with two goals: organising an effective Major Donors fundraising campaign and building long-term partnerships.

“Our approach is based on joint construction with donors and sponsors so that their values can live through our partnership while contributing to the Foundation's reach and funding the high-impact research projects it supports.”

Christelle Zeller,  
director of sponsorship and partnerships at the Arthritis Foundation.

# FOUNDATION 2.0

Like any communication model, digital involves specific principles that need to be implemented to ensure it develops smoothly.

The Arthritis Foundation has also strengthened its communication team, with the arrival in September 2021 of Tanguy Mur, our digital communication officer.

The purpose of this new post is to develop

the Foundation's digital strategy in order to promote innovative, promising research and raise public awareness. The priority is to locate the Foundation's role in the daily lives of donors, patients and the public.

## WEBSITES

### —○ <https://www.fondation-arthritis.org>

#### **FOR...**

Finding information about the Foundation and its missions  
Applying for calls for proposals  
Consulting the research supported by the Foundation  
Following the news  
Donating online  
Taking part in and finding out about clinical trials in France

### —○ <https://www.back-4p.org>

#### **FOR...**

Monitoring and taking part in the Back4P project on back pain funded by the Arthritis Foundation

### —○ <https://www.mots-pour-maux.fr>

#### **FOR...**

Helping patients to overcome their conditions and respond to their fears.

### —○ **E-news** [Register via the \[www.fondation-arthritis.org\]\(https://www.fondation-arthritis.org\) site](#)

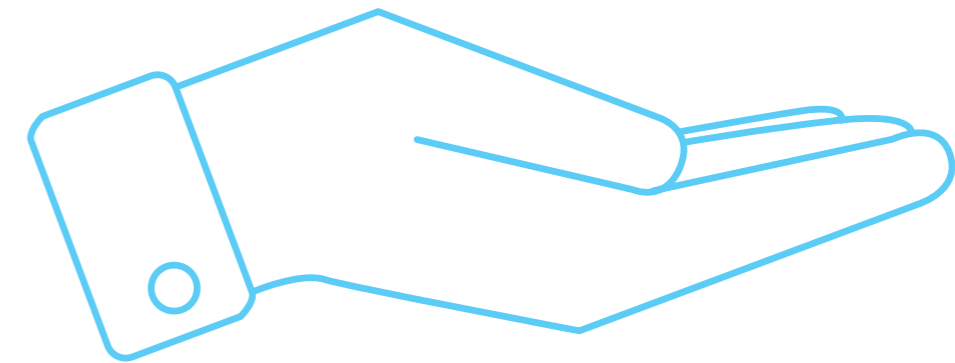
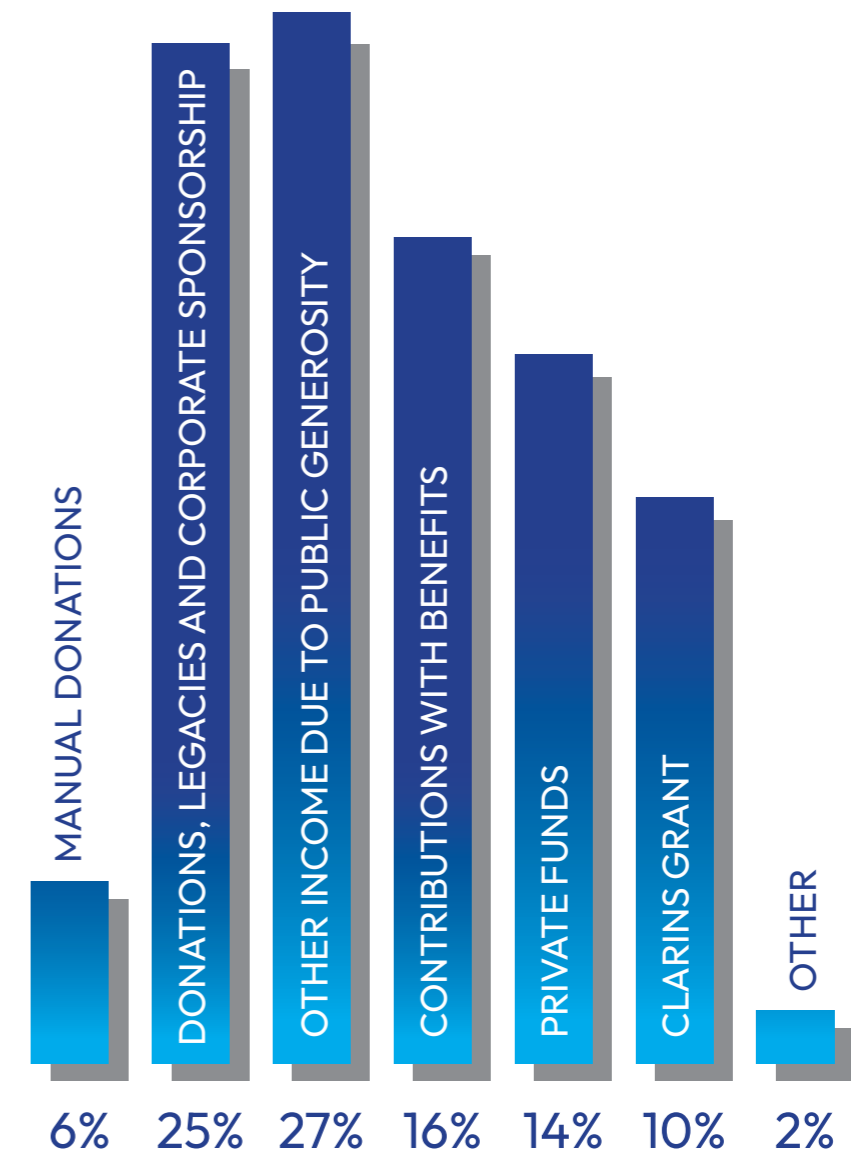
#### **FOR...**

Following the progress of MSD research  
Invitations to events, conferences and webinars

### —○ **Social media**

Facebook / @FondationArthritis  
Linkedin / Fondation Arthritis  
Instagram / @fondation\_arthritis  
Youtube / ArthritisFondation

## SOURCES OF FUNDS COLLECTED



## 04. Financial report

# RESOURCES

The Foundation carries out communication and fundraising work to finance research and raise public awareness. Its activities include organising events enabling it to communicate and raise awareness but also to collect funds. All profits generated by events are devoted exclusively to research, in the same way as donations received outside the context of communication programmes.

**The total amount invested in this research mission is €1,478,034.**

The Foundation has established a research company called Arthritis Research and Development, which produces all the Foundation's scientific output. In 2021, this company employed eight full-time researchers on the research projects listed below. *The joint research effort of the Foundation and the Arthritis company is significant, because it doubles the amount of work carried out by the company.*

The payments made to the Foundation's research missions involve the projects CURE-RA, ROAD, MIRIAD, BACK4P, the annual call for proposals providing grants to French research teams, EPOC, the organisation of Jacques Courtin Day and the Together Against Rheumatism (ECR) scientific day, and the compilation of clinical trials on osteoarticular diseases in France. Finally, they also cover the development of the 2020–2025 scientific strategy.

The payments made for the Foundation's missions of communication, awareness raising and public events concern the gala, Feet Week, auctions and all the sporting operations (golf, motor sport, sailing, tennis etc.).

**In addition, operating expenses amount to €265,923, paid for entirely by Clarins, which allocated a grant of €300,000 over the financial year.**





# Appendices

## PARTNER ASSOCIATIONS

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### ACS & RIC

**Action Against Spondylarthropathies & Chronic Inflammatory Rheumatism**  
Website: [www.acs-france.org](http://www.acs-france.org)  
Email: [info@acs-france.org](mailto:info@acs-france.org)  
Postal address for the national headquarters:  
12ter Place Garibaldi, 06300 Nice, France



### AFGS

**French Association for Sjögren's and Dryness Syndromes**  
Website: [www.afgs-syndromes-secs.org](http://www.afgs-syndromes-secs.org)  
Email: [contact@afgs-syndromes-secs.org](mailto:contact@afgs-syndromes-secs.org)  
Postal address: 9 rue du Château, 67540 Ostwald, France



### AFPCA

**Francophone Association Against Relapsing Polychondritis**  
Website: <https://afpca.fr/site/>  
Email: [contact@afpca.fr](mailto:contact@afpca.fr)  
Postal address:  
31 placette Emerillon lot. Hameau du Chateau vert, 83110 Sanary, France



### AFLAR

**French Association to Combat Rheumatism**  
Website: [www.aflar.org](http://www.aflar.org)  
Postal address:  
2 Rue Bourgon, 75013 Paris, France



### AFS

**French Spondyloarthritis Association**  
Email: [info@spondylarthrite.org](mailto:info@spondylarthrite.org)  
Postal address:  
Appartement 15 - Roussolles, 27 Rue Aimé Audubert, 19000 Tulle, France



### ANDAR

**National Association for Defence Against Rheumatoid Arthritis**  
Website: [www.polyarthrite-andar.com](http://www.polyarthrite-andar.com)  
Email: [andar@polyarthrite-andar.com](mailto:andar@polyarthrite-andar.com)  
Postal address:  
Rue Emile Zola, 34800 Clermont-L'Hérault, France



### KOURIR

**Association for Children With Juvenile Idiopathic Arthritis**  
Website: <https://www.kourir.org/>  
Email: [contact@kourir.org](mailto:contact@kourir.org)  
Postal address:  
9 Rue de Nemours, 75011 Paris, France



### LUPUS France

**National Association for Defence Against Rheumatoid Arthritis**  
Website: [www.lupusfrance.com](http://www.lupusfrance.com)  
Email: [presidente.lupusfrance@laposte.net](mailto:presidente.lupusfrance@laposte.net)  
Postal address:  
7 rue de Rocroy, 75010 Paris, France



# Appendices

## A RESEARCHER'S VIEW

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### Quiet epidemics *by Francis Berenbaum*

Some epidemics are noisy, brutally forcing the whole world to take notice of our fragility in the face of disease and threatening the very functioning of our health systems, our economies and our relationships, both professional and private. Some effects of these sudden awakenings are positive, making our societies better and more resilient and generating innovation.

But there are other epidemics that are insidious, quiet, harder to see, but which can still hit our societies hard if we do not watch out for the astronomical public health costs they cause and the damage they do in terms of quality of life. Opening the eyes of the public, decision-makers and the media about the very existence of these quiet epidemics is our responsibility. The most recent epidemiological data confirms that the next epidemic of this type will be the epidemic of rheumatism and musculoskeletal

disorders. The leading cause of disability in the world, these conditions are responsible for 87% of occupational illness in France; they are the second-biggest cause of sickness absence; they lead to €2 billion in direct costs for business and result in 100,000 knee replacements per year; 4,000 children and 600,000 adults are affected by chronic inflammatory rheumatism and six million people suffer with arthritis. Not only do these diseases impair quality of life; they can also increase mortality by 50% due to the physical inactivity they cause.

We have vaccines to prevent certain epidemics. We must invest quickly and heavily in research to stop these so-called quiet epidemics that are ravaging our societies.



#### FRANCIS BERENBAUM

Secretary to the Board of Directors of the Arthritis Foundation

Head of the Rheumatology Department at Saint-Antoine Hospital and Team Leader of

INSERM CDR

“Joint pathologies associated with metabolic diseases and age”



# Grateful thanks

Every partner sponsoring the Arthritis Foundation provides vital support to ensure research keeps moving.

They contribute to the progress of research by providing funding, benefits in kind or skills.

We are profoundly grateful to them.

### Founding sponsor

CLARINS

### Lead partners

DIOT-SIACI  
IMPRIMERIE MARTINENQ  
MEESCHAERT  
RDSL

### Friends

CREATIVE EVENT  
FIDAL  
GOLF PARC ROBERT HERSANT  
GOLF RCF LA BOULIE  
POTEL & CHABOT

### Partners

COMEBACK  
ARCADE BEAUTY  
BATITEC  
COURTOIS AUTOMOBILE  
FINANCIERE TIEPOLO  
ONIRIM  
PWC  
IMPACT GROUP

Nearly **1537 of you donated in 2021, including 301 sponsor companies**, to help the Arthritis Foundation, and every day more of you support our researchers to accelerate the development of innovative therapies.

You are our closest allies in this great scientific and human adventure. On behalf of patients, families and all of us... many, many thanks.

**Now let's come together in our millions to achieve our goal: a cure!**