a joint effort by your patient advocates & the DCAA research team

Newsletter DCAAIN AUSTRALIA

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G'day!

You might be wondering: a newsletter - why?! Let me introduce myself: my name is Sanne van Rijn. I am 34 years old, come from Katwijk in the Netherlands and am part of a DCAA family. My mom is 63 and a DCAA patient. I have not been tested for the gene. I am also a psychologist and a patient advocate for the DCAA Association. The association was started by my parents in 2007 with a few goals: getting better info to DCAA family members, setting up support groups, improving healthcare and working together with researchers towards a treatment. At time, none of that was in place and the disease was a huge taboo in the families.

16 Years down the line, a lot has happened. We helped the Dutch families overcome some of their fears about talking about the disease, helped them help each other and helped them understand the disease better. We have set up a specialized healthcare network that helps people before and after a stroke. And we have amazing working relationships with DCAA researchers. Together we have gotten to a point where we are having talks about a drug trial with an RNA therapy for DCAA. That's something we could not dream of back in 2007.

It was not long after we got our website up that Anna Palmer contacted us, informing us about DCAA in Australia. She formed a close friendship with my mother, being the same age and both known genecarriers. That relationship strengthened when Rob and Anna came to see us during their Europe trip in 2019. The next year I came here, with two professors from the Leiden team, to make serious plan towards DCAA research in both places that could help us get closer to a treatment. I spent a few weeks in Albany and built a strong relationship with Anna and her family. I am very happy I got to spend this time with her before she died.

She was essential in building the relationship between the Netherlands and Australia, as was Dini Plug. She was the first to contact Prof Ralph Martins to inform him about the existence of a DCAA family in Australia and helped your family become part of DIAN as a result, which directly led to the study TRACK DCAA.

Now, we are working together with an international research team and two pharma companies sponsoring DCAA research. In 2022 we all got together during the 8th International CAA conference and discussed how, together as research teams and patient advocates, we could move forward towards a drug trial. It was then that Ralph and I joked about me coming over for a while, to help. Because I am a patient advocate for DCAA, but also because I love, love, love Australia.

The Australian Alzheimer's Research Foundation actually made that dream come true, meaning I will spend a few months Down Under to work together with your family advocates (Dini, Dorinda, and Carol) to help DCAA families here accomplish some of the things that happened for the families in the Netherlands. One of them is to strengthen communication, to make sure you keep up to date about research, healthcare and support. This is why you are now reading the first volume of the Stop DCAA in Australia newsletter ever.

Being part of a Dutchtype CAA family can be hard and we are doing what we can to support you. On behalf of the whole team: thanks for taking the time to read this newsletter. If you have any questions, please don't hesitate to let us know!



Warm regards, Sanne

WHO ARE WE?



Sanne van Rijn, Msc. Psychologist & patient advocate



Prof Hamid Sohrabi **Director of the Centre** for Healthy Ageing at **Murdoch University**



Kevin Taddei **Research Manager** Neuroscience **Research Group**



Dr Samantha Gardener **Research fellow**



Dr Dorinda 't Hart **Research Associate in** Social Sciences & patient advocate



Prof Ralph Martins, Foundation Chair in Aging and Alzheimer's Disease



Dini Plug, Msc. School teacher & patient advocate





Carol Harper Entrepeneur & patient advocate

Australian **ALZHEIMER'S** RESEARCH Foundation

FROM HOLLAND WITH LOVE



HOME

ABOUT HCHWA-D ✓ THE ASSOCIATION ✓ EVENTS

NEWS

JOIN US DONATE 🖪 🙆 🚟 🗸

HCHWA-D Association

The HCHWA-D Association is there for everyone that has to deal with the disease. Patients, gencarriers, possible gencarriers, caretakers, familymembers or involved in a different way? You are not alone

About HCHWA-D →

About us →



DID YOU KNOW THAT THE PATIENT ASSOCIATION'S WEBSITE IS AVAILABLE IN ENGLISH AS WELL? HERE YOU'LL FIND INFORMATION ABOUT THE DISEASE. GETTING SUPPORT AND HEALTHCARE, GENETIC TESTING, HAVING CHILDREN, ETC. YOU CAN ALSO FIND NEWS ITEMS ON THIS PAGE AND INFORMATION ABOUT EVENTS, LIKE THE WEBINAR ON AUGUST 10TH. AND EVERYTHING YOU WANT TO KNOW ABOUT ONGOING DCAA RESEARCH. JUST SELECT ENGLISH IN THE MENU ON THE TOP RIGHT.



YOU CAN ALSO FIND US ON YOUTUBE (VERENIGING HCHWA-D KATWIJKSE ZIEKTE) - INCLUDING THE VIDEO OF THE FAMILY MEETING IN NOV 2022 IN PERTH ABOUT TRACK DCAA AND A POTENTIAL TREATMENT (IN ENGLISH). OTHER VIDEOS ARE BEING SUBTITLED IN ENGLISH AS WE SPEAK.

A FAMILY EFFORT



YOU MIGHT BE WONDERING WHAT PATIENT ADVOCATES ACTUALLY DO!

They know what to do, we know how it feels. As patient advocates we work together with healthcare professionals, researchers and pharmacompanies to help them understand what it is like to be part of a DCAA family. We help them communicate with DCAA families and inform them about our needs. We also act as a liaison, voicing worries and feedback from the community. We are a trusted voice and are a trusted and necessary partner. For example: Sanne is now having weekly talks with Alnylam about the design of a potential trial. Being well-organised as family members helps pharmacompanies to choose us to be part of drug development.

We are setting up a family committee in Australia. This will help build relations between the research team, the neurologist and you as family members. Also, by the time Alnylam is ready to start conversations about a potential trial in Australia, we can show them the families are well-organised and a great partner to work with during the entire process. This will help them make a decision. You can help with communication, recruitment and possibly the design of the trial. We ask members of the committee to be part of a meeting with the research team every three months and spend some time together on strategy and communication a few hours a month. If you are someone who thinks can be helpful and wants to stand up and do something, please contact Dini at dini.plug@gmail.com.



A POTENTIAL TREATMENT FOR DUTCHTYPE CAA

YOU MIGHT WONDER WHY IT IS TAKING A LONG TIME TO FIND A TREATMENT FOR DUTCHTYPE CAA. DEVELOPING A DRUG IS TIMECONSUMING, COMPLICATED AND EXPENSIVE BUSSINESS. DCAA IS A RARE DISEASE AND THE TOUGH REALITY IS THAT WE ARE NOT VERY INTERESTING TO DEVELOP A DRUG FOR. FORTUNATELY, ALNYLAM HOPES TO EVENTUALLY HAVE ALN-APP ON THE MARKET FOR BOTH (HEREDITARY) ALZHEIMER AND (HEREDITARY) CAA. THAT MEANS THIS IS AN INCREDIBLE OPPORTUNITY FOR US. THERE IS NO OTHER DRUG LINING UP.

A DRUG TRIAL WITH ALN-APP

PHASE 2

how DCAA develops in the brain of genecarriers and



Overview of Decision Points and Development Steps in Medicines R&D

Decision Point



TRACK DCAA IS NECESSARY TO GET **TO A TRIAL - READ** WHY ON THE NEXT PAGE

WHY TRACK DCAA & the consortium

The patient assocation, Dutch CAA foundation, scientists from NL, AUS and the USA, and Alnylam and Regeneron have been working together since 2021 to make TRACK DCAA a success. The study is designed to follow (potential) genecarriers over time to see how disease progress can be followed. That helps understanding of DCAA and informs the design of a potential future drug trial.

The entire international group working on TRACK DCAA comes together every three months online to discuss the progress of the study and to inform Alnylam and Regeneron. In November 2022 we had the opportunity to meet face to face during the 8th international CAA conference in Perth. We spend an entire day discussing how we can help convince Alnylam and Regeneron to include DCAA family members in a ALN-APP trial and what the trial design should look like.

PART OF THE CONSORTIUM TOGETHER IN PERTH TO DISCUSS TRACK DCAA

Besides what we are learning about disease course, the study is what we call a 'trial run in' study. This means the drug companies are studying the likelihood of designing a successful trial with the research groups, the facilities and the number of people from DCAA families willing to participate in both Leiden and Perth.

THE FAMILY PERSPECTIVE



SOME OF YOU WERE PART OF THE COMMUNITY CONVERSATIONS DURING THE CAA CONFERENCE AND WE ARE VERY THANKFUL FOR IT! DURING THE CONVERSATIONS WE TALKED ABOUT OUR **EXPERIENCES AS DCAA FAMILY MEMBERS** AND HOW THEY INFLUENCE WHETHER OR NOT WE PARTICIPATE IN RESEARCH. YOUR INPUT REALLY HELPED GROW THE UNDERSTANDING OF THE RESEARCH TEAMS. AS THE RESEARCH TEAMS WERE PART OF THE CONVERSATION, THEY LEARNED A LOT AND ALSO FELT LIKE THEY GREW CLOSER TO THE FAMILY MEMBERS. **ONE RESEARCHER SAID:** THIS WAS THE <u>BEST PART OF THE ENTIRE</u> CONFERENCE." THANKS VERY MUCH TO ALL FAMILY MEMBERS ATTENDING AND OPENING UP!

In the Netherlands, the 50th participant was included in June 2023. In Perth currently there are 24 people part of the study, of whom 21 are Plug family members. WE NEED YOU

• 2 8 HP 2 6 2

AN INDICATION OF WHAT THE MRI LOOKS LIKE

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PARTICIPATION IN TRACK DCAA

YOU KNOW YOUR FAMILY MEMBERS HAVE BEEN PART OF DCAA RESEARCH FOR MANY YEARS? IT STARTED WITH A NUMBER OF THEM BEING PART OF THE STUDY DIAN (DOMINANTLY INHERETED ALZHEIMER NETWORK). THEY HAVE BEEN UNDERGOING A NUMBER OF TESTS EVERY YEAR TO FOLLOW DISEASE PROGRESS IN GENE CARRIERS. BECAUSE OF THEIR INVOLVEMENT WE WERE ABLE TO INCLUDE THE AUSTRALIAN FAMILIES IN TRACK DCAA. AS OF JULY 2023, 24 PEOPLE PARTICIPATE IN TRACK DCAA, OF WHOM 21 ARE PART OF THE PLUG FAMILY. THE OTHER PARTICIPANTS COME FROM OTHER DUTCH FAMILIES WITH THE DCAA GENE WHO IMMIGRATED TO AUSTRALIA. WE ARE VERY THANKFUL FOR EVERY ONE WHO HAS BEEN PART OF THE RESEARCH FOR A LONG TIME AND THOSE OF YOU WHO SIGNED UP IN THE PAST FEW YEARS. WE KNOW WE ASK A LOT OF YOU: A CONFRONTATION WITH THE DISEASE, WITH THE HOSPITAL, WITH QUESTIONS ABOUT YOUR HEALTH, WITH AND MRI AND LUMBAR PUNCTURE... WE UNDERSTAND IT TAKES SOMETHING OUT OF YOU. LUCKILY THERE IS A LOT IN IT FOR US TOO.

Jan Plug was a widower and had four children (Jan, Teunie, Henk and Geertje) when he married Coosje. Together with the extended Plug family and their first child Pieter they emigrated to Albany in 1950 and had seven more children (Aart, Joe, Jenny, Maria, Coosje, Rikki and Inge) Eerste vissers-emigranten vertrokken

THE PLUG

THING

Van de bijna duizend emigranten, die Woendag niet de Sibajak uit Rotterdam naar Australië vertrokken, zullen ruim vijfhonderd aldaar worden ondergebracht in zogenaamde woonoorden, omdat ze nog geen adres hebben.

Aan boord spraken wij met Dirk Plug, een visser uit IJmuiden, die met zijn broer, Jan Plug, en hun respectieve gezinnen van tien en zeven personen, als eerste vissers-emigranten vertrokken.

"Half December heeft onze familie de hoofden eens bijeen gestoken," zo vertelde de heer Plug. Onze familie bestaat uit negen en dertig personen. Uitvoerig zijn toen de emigratie-plannen besproken, gezamenlijke financiële zomede onze draagkracht. Al mijn familieleden zijn vissers en hoewel zij thans nog wel een goede boterham hebben, zijn toch de toekomstmogelijkheden niet aanlokkelijk. Velen voelden wel wat voor emigratie, doch het leek ons verstandig enkele ... verspieders" vooruit te zenden, die dan alvast poolshoogte konden nemen in het nieuwe land. En zo kwam het, dat mijn broer Henk en zijn zuster Rika vast vertrokken. Hun brieven ademden zo'n optimistische geest, dat bij al onze familieleden de emigratie-plannen steeds vastere vorm aannamen.

Voorlopig zullen de emigranten in Albany gaan wonen. Waarschijnlijk zullen deze beide emigrantengezinnen spoedig gevolgd worden door alle leden van de grote familie Plug. De oude 70-jarige moeder gaat ook mee. Zij vertrekt denkelijk half September met een Engels emigrantenschip.

Actual news paper clipping in a Dutch newspaper reporting on the family Plug moving to Albany

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WHAT'S IN IT FOR US?

A POTENTIAL TREATMENT

Alnylam

Our Company

Our Science

Our News

Investors Medical Professionals Patients

Job Seek



Our Products

Alnylam and Regeneron Report Positive Interim Phase 1 Clinical Data on ALN-APP, an **Investigational RNAi Therapeutic for Alzheimer's Disease and Cerebral Amyloid** Angiopathy

Apr 26, 2023

- Single Doses of ALN-APP Demonstrated Dose-Dependent, Rapid and Sustained Reduction of sAPPa and sAPP β in Cerebrospinal Fluid, with Up to 90% at Highest Dose to Date –

- Encouraging Clinical Safety and Tolerability Profile Observed with Single Dosing to Date -
- Results Provide First Demonstration of Gene Silencing by RNAi Therapeutics in the Human Brain Using Alnylam's Proprietary C16 Platform -
- Alnylam to Host Conference Call Today at 4:30 p.m. ET -

CAMBRIDGE, Mass. & TARRYTOWN, N.Y.-- (BUSINESS WIRE)-- Apr. 26, 2023-- Alnylam Pharmaceuticals, Inc. (Nasdaq: ALNY) and Regeneron Pharmaceuticals, Inc. (Nasdaq: REGN) announced today positive interim results from the ongoing single ascending dose part of the Phase 1 study of ALN-APP, an investigational RNAi therapeutic targeting amyloid precursor protein (APP) in development for the treatment of Alzheimer's disease and cerebral amyloid angiopathy (CAA).

Twenty patients have been enrolled in three single-dose cohorts in Part A of the ongoing Phase 1 study in patients with early-onset Alzheimer's disease. In this study to date, single doses of ALN-APP, which are administered by intrathecal injection, have been well tolerated. All adverse events were mild or

On July 22nd Alnylam is joining a family meeting in Katwijk to introduce the company and ALN-APP. This meeting is available through a livestream and starts 4pm W.A. time. You are welcome to join. Ask Maike for a link: mhoek@hchwa-d.nl.

PLEASE CONTACT:

Christine Lindenboom

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MEDIA KIT

Essential assets and

WE HAVE ONGOING CONVERSATIONS WITH ALNYLAM ABOUT BRINGING A TRIAL WITH ALN-APP TO BOTH THE NETHERLANDS AND PERTH. TO GET THERE, AS DCAA FAMILY MEMBERS WE NEED TO SHOW THEM WE ARE MOTIVATED TO BE PART OF TRACK DCAA AND A POTENTIAL TRIAL. 24 PARTICPANTS IN PERTH IS GOOD, MORE WOULD BE BETTER. BRINGING A TRIAL WITH ALN-APP TO AUSTRALIA MEANS THAT YOU WILL HAVE EARLY ACCESS TO A DRUG THAT HAS THE POTENTIAL OF SLOWING DOWN THE **DISEASE. ISN'T THAT WHAT WE ALL WANT?** 10

WHO CAN PARTICIPATE?

INCLUSION WHO CAN PARTICIPATE? CRITERIA WE ARE FAMILY PLANNING RIGHT NOW, CAN I **ANYONE FROM A DCAA FAMILY PARTICIPATE IN BETWEEN THE AGE OF 25 AND 60** TRACK DCAA? **ANYONE WHO IS A GENE CARRIER OR HAS** A 50% or 25% CHANCE **ANYONE WITHOUT MORE THAN 1** SYMPTOMATIC STROKE YES! YOU CAN'T BE PREGNANT DURING ACTUAL YOUR FIRST VISIT DOE PARTICIPANTS IN WHEN WE DO WHAT WE CALL A BASELINE IF YOU ARE PREGNANT WHEN MEE TRACK DCAA ASSESSMENT YOUR FIRST OR SECOND YEAR ASSESSMENT IS DUE, WE FROM THE ONLY ASK YOU TO TAKE PART **NETHERLANDS** IN THE PROCEDURES THAT

IN 2021 WE CAMPAIGNED IN THE NETHERLANDS ("STOP THE KATWIJK DISEASE") TO ASK DUTCH CAA FAMILIES TO PARTICIPATE IN RESEARCH – THE WEBSITE WILL BE AVAILABLE IN ENGLISH MID AUGUST

HELP MEE

ARE SAFE DURING PREGNANCY

stopdekatwijkseziekte.nl

KATWIJKSE ZIEKTE

E ONDERZOEKEN

WIE KAN MEEDOEN?

VEELGESTELDE VRAGEN



105 menser aanger onderz

mensen hebben zich aangemeld voor de nieuwe onderzoeken.

Meld u aan -

WEBINAR: INTRODUCING ALN-APP

WE'D LIKE TO INVITE YOU TO THE WEBINAR: "INTRODUCING ALN-APP" WE'LL TELL YOU EVERYTHING ABOUT THIS POTENTIAL RNA THERAPY FOR DCAA

> YOU CAN ASK THE TEAM YOUR QUESTIONS ANONYMOUSLY THROUGH THE CHAT

WHEN: AUGUST 10TH TIME: 7PM W.A. TIME WHERE: ONLINE (LINK FOLLOWS SHORTLY VIA EMAIL, WEBSITE AND FACEBOOK), REGISTRATION IS NOT NECESSARY FOR WHO: ANYONE INTERESTED IN A POTENTIAL TREATMENT FOR DCAA

OTHER NEWS

Stroke neurlogist doctor Daniel Clarke has been a great addition to the team! He is available for clinical care every Monday afternoon. This service is generously sponsored by the Australian Alzheimer's Research Foundation. The clinical service is also available for DCAA family members who do not participate in TRACK DCAA. You can make an appointment through Samantha: s.gardener@ecu.edu.au; office number: 08 6457 0419

Australian

Foundation

ALZHEIMER'S

RESEARCH

What is TRACK DCAA?

TRACK DCAA is a natural history study. This means that we are studying the course of the Dutchtype CAA in gene carriers. TRACK DCAA is sponsored by two pharmaceutical companies: Alnylam and Regeneron. The aim of the study is twofold: 1) learning more about from what age the amyloid starts to clutter in the brain and 2) learning more about how to measure the progression of the disease in gene carriers. Studying these things is necessary for a potential drug trial in the future. TRACK DCAA helps gain insight as to what age to start an intervention that hopefully slows down the disease, and also helps us understand during a drug trial how to measure if a drug is actually slowing down the disease.

What does TRACK DCAA look like?

Participants who take part in TRACK DCAA undergo an MRI, a PET-CT scan, a lumbar puncture and cognitive tests. We do not take asking these things of you lightly. Together we decided that these parts of the study are necessary, because we want to get a clear understanding of what happens in the brain. An MRI helps us picture (micro)bleeds, a PET-CT scan makes amyloid deposits in the brain visible, a lumbar puncture shows us how much amyloid is 'cleared' (or not cleared) from the brain through the cerebrospinal fluid (CSF) and the cognitive tests show us the effect of the disease on attention and memory. You will also undergo a clinical assessment and will be asked to give blood. Both blood and CSF are checked for biomarkers – indicators of disease.

Why is TRACK DCAA essential to future drug trials?

The study helps us understand more about how the disease develops in the brain of gene carriers from a young age. We hope that the study helps us get into drug trials. When you do a drug trial, you want to know two things: 1) when is the best time to start the intervention? and 2) how can we measure if the drug actually slows down the disease? Basically, you need to know what is the best way to see how Dutchtype CAA behaves in the brain and if that changes when you use a potential drug. TRACK DCAA helps us understand if the methods we think do that, actually do. That is necessary if we want to be part of drug trials.

I want to participate but only if a drug is tested, is that possible?

We understand this question very well, and yes, you could. But that would be a real shame. Because the number of people participating in TRACK DCAA, help us design the drug trial we are desperate for. Because DCAA is so rare, as family members we really need to work together.

We are family planning - can I participate?

We are able to enrol participants who may be planning on getting pregnant during the two years of the study. You will need to complete the whole assessment at baseline so cannot be pregnant at this assessment point, but if you are pregnant at 12- or 24-month assessments we will only complete the procedures which are safe to do so.

Why does it take two weeks in Perth to participate?

The research team hires specialists to take you through all parts of the study safely and professionally. Because not all of them are available on the same day, unfortunately we have to schedule your appointments over a period of time.

What does the program look like for a participant?

Your first contact is with Samantha Gardener, PhD, who is part of the research team at the research centre in Perth. She talks you through what to expect and answers all of your questions. You then get a consent form containing all the information you need to know before participating and when you agree, you sign. This is followed by a clinical assessment with Doctor Ana Gnjec, and fasting blood samples. This is followed by memory testing and the It's the Clinical Dementia Rating either with Clinical Neuropsychologist Registrar India or Vandhana. PET-scans are done on Thursday at Oceanic Medical Imaging at Hollywood Private Hospital. The MRI-scan is on Saturday at SKG Radiology at Hollywood Private Hospital. Your visit ends with undergoing a lumbar puncture in the research centre on the Tuesday morning.

What if I need to travel or book accommodation?

The research team can either book your accommodation for you or refund accommodation costs to a reasonable nightly rate. Petrol and parking costs are also refunded by the team.

Am I eligible for TRACK DCAA?

You can participate if you are a DCAA gene carrier, have a 50% chance of carrying the gene because one of your parents does, or a 25% risk of carrying the gene as one of your grandparents does and the genetic status of your parent is unknown. Anyone over the age of 25 and under the age of 60 is eligible for TRACK DCAA, who hasn't had more than one symptomatic stroke. If you are not eligible now, but you want to participate in the future, please still contact us. We would love to be able to get in contact with you when the opportunity for future research emerges.

When will I participate if I were to sign up now?

We would like you to participate as soon as possible. Once you make an inquiry, Samantha will contact you. She checks whether you are eligible for the study. This depends on your age, genetic status (gene carrier, 50% or 25% risk) and whether or not you have had a stroke. If you are eligible for participation, she talks you through the different parts of TRACK DCAA. After this, you decide whether you want to join or not.

I want to participate but I don't want to know if I'm a carrier - can you guarantee I won't find out?

Yes! We make sure there is no way you can find out through the study whether you are a gene carrier. If you don't want to know, you will never find out through participating in TRACK DCAA. If you do want to know however, we can help you with the process.

I'm still unsure if I want to sign up. Can I talk to someone about this?

If you have any doubts about something or you are worried, you can either talk to Sanne van Rijn, who is a Psychologist and patient advocate who comes from a DCAA family herself, or talk to Samantha Gardener, a scientist who has been part of the DCAA research team for many years.

If I say yes now, can I still change my mind?

Yes, you can change your mind at any time before the actual investigation has begun. During the intake interview, we inform you about what you can expect and help you make up your mind.



Can family members find out that I am participating?

No, absolutely not. It remains your choice whether to make that information public, or not. When you decide to participate, all information about you is stored completely securely. This is required by law. Only members of the research team have access to your information and they work according to ethical and legal regulations.

I know I am a gene carrier, but I don't have any symptoms (yet). Can I participate? Yes, please! We want to know more about how the disease develops way before there are symptoms. If you are over the age of 25, we would love for you to be part of TRACK DCAA. I have already had a stroke, can I participate?

If you are still eligible for TRACK DCAA and/or a future trial, depends on your disease progression. We are happy to have a conversation and together find out what we can mean to each other. Do not hesitate to contact us, even if you are not eligible for TRACK DCAA, we would love to know that you are up for participation if and when the opportunity arises.

Is there a minimum or maximum age?

Yes, for TRACK DCAA, the minimum age is 25 and the maximum age is 60. However, it is very important that as many people as possible register to participate in research, even if there is no ongoing research you are eligible for right now. You can register from 18 years and upwards.

Why is the minimum age 25?

Dutch and Australian family members have been participating in natural history studies for many years. The studies have shown that especially in the cerebrospinal fluid taken by a lumbar puncture, we can already see a change in amyloid clearance from the brain from late 20s / early 30s in gene carriers. Obviously this is something that might scare us as family members, but at the same time this knowledge helps us to intervene as early as possible. This is the reason why we ask young people, who are not personally affected by DCAA (yet), to participate. You can join in if you do not want to know your genetic status, so you can safely participate without finding out if you are a gene carrier.

Can I register my children or parents?

No, you cannot, they have to sign up themselves. We encourage you to have a conversation about research and DCAA, but they must make a choice themselves.

How many DCAA family members need to be part of TRACK DCAA?

We cannot give an absolute number. The more people participate, the greater the chance of success. The widest possible group in terms of age and gender helps enormously to learn about disease development in the brain. As of July 2023, 24 people from different DCAA families in Australia participate in TRACK DCAA. We are very thankful to them and hope that more of you choose to do so.

When are they going to test a drug?

It is very likely that a drug trial with ALN-APP, an RNAi therapy, will be conducted in the Netherlands by the end of 2023 / early 2024. We do not know if that trial will be available for Australian DCAA families but will find out soon and are confident Australia will be included.

Does a drug trial mean an available treatment?

We are hopeful, but we know that drug trials can fail. However, being part of a drug trial does mean that you will have access to a potential drug. If it works, this means that we slow down the accumulation of amyloid in the brain and therefore slow down the disease trajectory in gene carriers.

Will a treatment come in time for me?

We obviously hope so! But the honest answer is: we don't know. Drug development takes many years. Yes, that hurts, we know. So why should you participate in research? You help anyway! If it's not for our generation, then for our children, nieces and nephews.

I am old enough to get a stroke, will there be a treatment in time?

We do everything we can together to make that happen. But drug development is a complicated process that takes time. We are positive about a number of potential drugs, but we have to be realistic. It may take a number of years before there is a treatment for Dutchtype CAA. Even if it may be too late for you, your participation means helping all of us towards the development of a drug.



Are there any side effects to participation in a drug trial?

It depends on the drug. When you are thinking about participation, you will have a lengthy conversation with somebody from the research team. They will inform you about pros and cons and help you decide on participation. Moreover, a drug company will NOT be granted permission for a drug trial if the risks outweighs the rewards. This is assessed in advance by national regulators and the Medical Ethical Review Committee.

How does a lumbar puncture (spinal tap) work?

With a lumbar puncture (also called a spinal tap) a small amount of cerebrospinal fluid is taken from your spine. This fluid normally sits around the brain and around the spinal cord. It is there for protection, but is also a clearance system for the brain. The lumbar puncture is performed in a safe manner by an experienced anesthetist. In total, the lumbar puncture procedure takes about 10 minutes, then you remain lying down for a number of hours to reduce the chances of post procedure headaches.

What is a lumbar puncture (spinal tap)?

Logically, the lumbar puncture is not the part that people most look forward to. We would not ask you to take part in it, if it wasn't safe and very important. By means of the lumbar puncture, cerebrospinal fluid is taken from your spine with a narrow needle at the bottom of the spine. Cerebrospinal fluid surrounds the brain and serves as protection, but also as a "waste system". In the collected cerebrospinal fluid, the researchers can see how much of the toxic amyloid protein is or is not removed from the brain in gene carriers. This method is currently the only way to visualize the protein directly and therefore very important. It will most likely also be the most reliable way in future drug development to be able to measure whether a drug does what we hope it does: ensure that less amyloid clutters the brain.

What exactly happens during an MRI?

The examination with an MRI scan takes up to 60 minutes. In the MRI scan, which looks like a deep tunnel, you are lying on a bed. You won't feel anything during the scan. There are no risks involved. When sliding in and out of the MRI scanner, about 1 in 3 people experience dizziness, which usually always disappears within a minute. The scanner makes quite a lot of noise, so to protect your hearing we provide you with earplugs. During the scan you can listen to music, possibly a CD you brought yourself. In addition to the regular MRI scans, a functional MRI (fMRI) is also being done. This means that while you are in the scanner you will look at a moving picture for about 10 minutes, which helps us study blood flow in your brain.

What is an MRI?

An MRI scanner is a kind of tunnel with a bed in it. It makes use of a magnetic field and radio waves to take pictures of your brain. This method is completely safe. The photos give us a picture of bleeds and microbleeds in the brain of gene carriers. This gives us more information about from what age approximately, and how, the disease develops in the brain over time.

What is a PET-CT scan?

During a PET-CT scan, you will receive a 'tracer', a slightly radioactive glucose (sugar) through an IV. This tracer moves to your brain, where it sticks to the toxic amyloid deposits that cause DCAA. You will then undergo a brain scan, a PET-CT scan. This method helps make amyloid deposits in the brain of gene carriers visible. The method has been used in Alzheimer's research by the Perth research team for a long time and is safe. It is a relatively new method for Dutchtype CAA. At the moment, the PET-CT scan is therefore less informative than, for example, the lumbar puncture. Part of the goal of TRACK DCAA is to examine whether the PET-CT scan is an effective way to visualize the course of the disease.

How does a PET-CT scan work?

A small amount of a tracer that sticks to amyloid in the brain is administered through an IV. The substance is not dangerous and disappears from the body through urine within a few hours. The tracer has no side effects. Once the tracer has been administered, you should wait a while so that your body has time to absorb it. During this waiting period you have to rest, but you can, for example, read a book or magazine or use other media, such as watching a movie on your phone. If the substance is sufficiently absorbed, both a PET scan and a CT scan are made. It is important that you lie still during the PET-CT scan, which is why there will be a band around your head to support you. The computer then combines the results of the two scans. This makes it easier to see where the tracer is absorbed in the brain and helps to locate amyloid deposits. The scan takes up to a total 60 minutes. The entire examination, from administration of the substance with the waiting period to the end of the scan, takes about 2 hours.

Are there any side effects of a PET-CT scan?

In the PET-CT scan we use radiation and a radioactive substance. During TRACK DAA you receive 20.1 mSv. In comparison: the background radiation (the radiation that one incurs from natural radiation sources in the environment) in Perth is about 2 mSv each year, in the Netherlands it is about 2.5 mSv per year. People in Switzerland even receive about 5.8 mSv of natural background radiation per year due to the altitude. We recommend telling us if you are undergoing any other therapy that involves radiation at the same time. It is highly unlikely that the radiation from the scan in this study harms you, however, we advise you not to participate in any other scientific studies involving radiation for medical reasons.

What if I participate in TRACK DCAA and I want to know if I am a gene carrier, can I get that information right away?

Because it is so important that people who have indicated that they do not want to know whether they are gene carriers cannot accidentally find out, it is not possible to find out through the study if you are a gene carrier. However, if you want to, your brain scans are available to our neurologist Doctor Daniel Clarke. He is available for appointments every Monday afternoon and specialized in genetic and sporadic CAA. The team can also help you undergo genetic testing to find out your genetic status, if you wish to. You can find out more about genetic testing at www.hchwa-d.nl/en/.