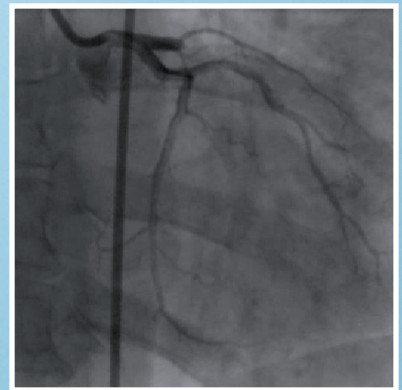
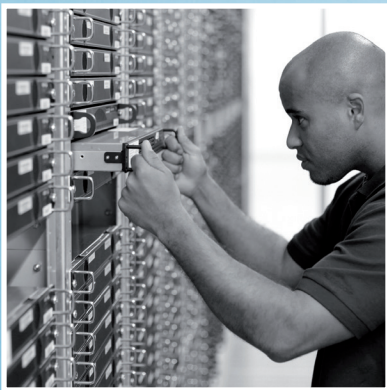


# CARDIO NETWORKS.ORG

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## ANNUAL REPORT 2018



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Improving access to medical knowledge

# CARDIONETWORKS IN BRIEF

The Cardionetworks Foundation is a non-profit organization founded in 2007 and based in The Netherlands. The goals of the foundation are: “to improve medical knowledge, especially in the field of cardiology, and to provide access to this knowledge by facilitating publications in digital or other form, amongst other means by building and maintaining websites.” As a not-for-profit organization, all revenues are spent in the pursuit of this cause.

Cardionetworks manages specialized websites, providing high quality and up-to-date information freely to physicians all around the world. Our websites are all published under a creative commons license and the information is accessible without login or registration.

## Make a donation

As a charitable enterprise, we rely entirely on the generosity of our supporters to allow us to continue in our work. To join our growing list of supporters please contact [vanderwerf@cardionetworks.org](mailto:vanderwerf@cardionetworks.org) to discuss the best way to contribute.

Every cent you are able to give helps us further promote free global access to vital medical information and resources. Please know that the board members of the Cardionetworks.org Foundation are not receiving financial compensation for their work.

Thank you for your generosity.

# MESSAGE FROM THE FOUNDATION BOARD

Welcome to the 2018 annual report of Cardionetworks. Since its inception in 2007, the goal of the Cardionetworks Foundation has been to provide free and open access to unbiased and up-to-date medical knowledge to the global medical community. The non-profit organization enjoys a significant international online presence from its base in The Netherlands.

The foundation publishes and maintains a series of websites offering physicians, nurses and students invaluable, reliable and up-to-date information on certain specialized subjects. Our websites are published under a creative commons license, allowing free, global access without login or registration.

We realised this year that our continuous rise in visitor numbers to the Cardionetworks websites shown in the past 10 years, has now become uncertain. We started using Cloudflare software to ensure stable website performance. This software shows much higher traffic (2-10 fold) but is also considered less informative for the appreciation of visitor statistics. In contrast, while Cloudflare is not affected by ad-blockers, our original visitor statistics are. In summary, we might have experienced a drop in visitor numbers, but this is not certain.

This year we reached a little over 2 million visits through our regular servers (2017: 2.7 million). Our global reach still covers the globe with 229 countries. We are particularly proud that increasing numbers of our visitors are located in developing countries. India for example has remained at the 3rd place in our visitor statistics and the Phillipines, Malaysia and Pakistan complete our top 10 visiting countries.

Fundraising remains extremely challenging in this tough economic era. Like every year, our funds were used to expand and increase the quality of the website content, to keep moving all the websites to new dedicated servers including adoption of the Cloudflare software to ensure faster and more reliable access from all over the world. Our reference cards from ECGpedia, ECHOpedia and PCIPedia reference cards which are sold online are currently one of our most valuable assets to maintain our balance.

Our continuous efforts to improve the knowledge base on cardiology and to provide free access, has this year again been illustrated by the development of [www.QTcalculator.org](http://www.QTcalculator.org) following our research in Long QT syndrome and a rewarding publication in the world-renowned cardiology journal Circulation.

None of the achievements of this year, or during the lifetime of Cardionetworks, would have been possible without the tremendous efforts of the many volunteers who have helped in the process. As always, the foundation board is grateful for all the work and time that have been freely given to make this project such a success.

Jonas de Jong, MD, PhD, Chair

Pieter Postema, MD, PhD, Secretary

Christian van der Werf, MD, PhD, Treasurer

The Cardionetworks Foundation board.

# VISITORS STATISTICS

The majority of visitors located the site through a search engine. A variety of search terms were used to locate the site, including “myocardial infarction”, “pathologic q waves”, “QTc calculator”, and “QRS axis”, demonstrating the genuine need for this service.

The geographical distribution of visits to our own en.ecgpedia.org is shown in the map. The majority of users continue to be based in English-speaking ‘developed’ countries. However, visitors from countries such as India, the Philippines, Malaysia and Pakistan represent a significant proportion of our users.

## • Visitor statistics of en.ECGpedia.org in 2018

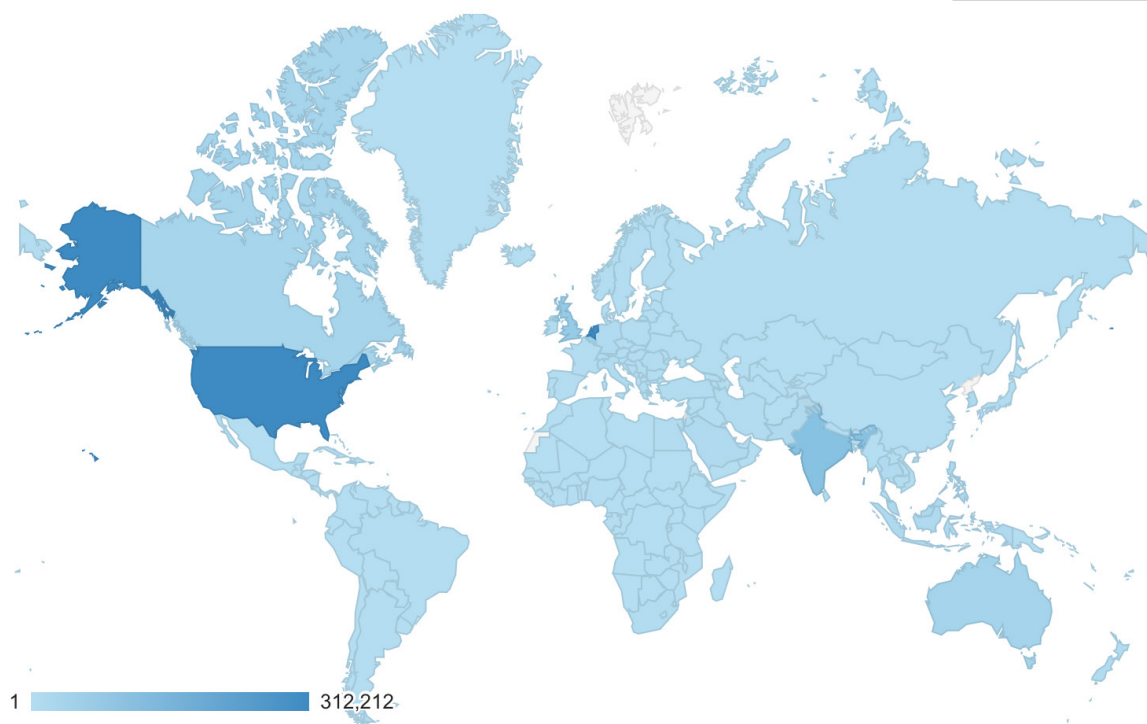
Country/Territory	Acquisition			Behavior		
	Users	New Users	Sessions	Bounce Rate	Pages / Session	Avg. Session Duration
	<b>1,165,229</b>	<b>1,160,941</b>	<b>1,690,583</b>	<b>65.44%</b>	<b>2.34</b>	<b>00:01:57</b>
United States	312212	311455	365090	76,63%	1,70	00:00:56
Netherlands	305734	290593	583902	51,84%	3,18	00:03:13
India	101311	100972	128667	73,71%	1,57	00:01:06
United Kingdom	65559	64701	79026	74,15%	1,75	00:01:02
Belgium	53742	51954	92325	54,95%	2,98	00:02:48
Australia	33992	33112	40216	75,01%	1,73	00:01:09
Canada	29805	29355	36592	75,68%	1,73	00:01:03
Philippines	17551	17454	20865	79,63%	1,39	00:00:50
Malaysia	15096	14614	18247	78,64%	1,44	00:00:54
Pakistan	11000	10791	13618	73,21%	1,61	00:01:10



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The majority of visitors located the site through a search engine, demonstrating the genuine need for this service

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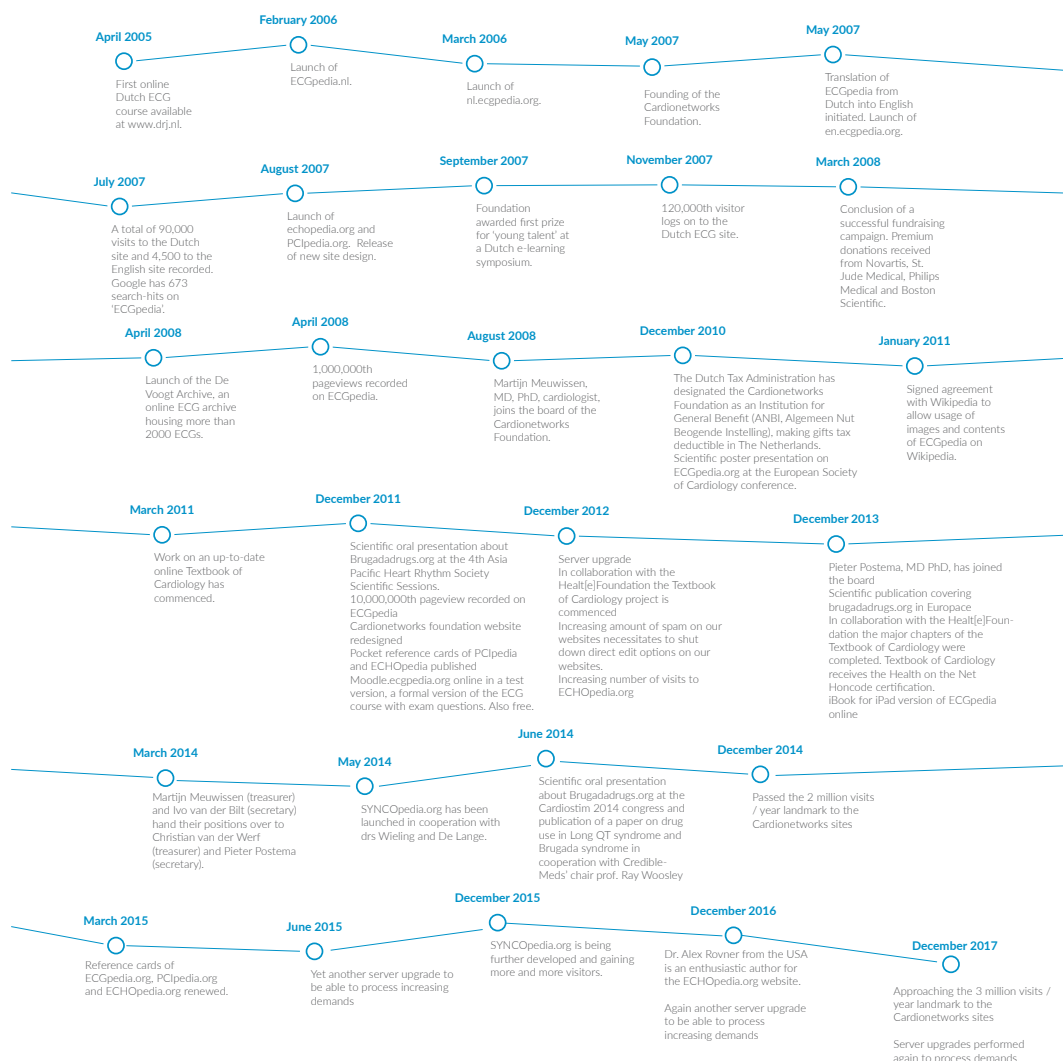
Figure 1. Sessions by country.

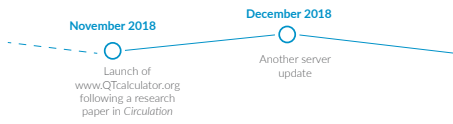
# CARDIONETWORKS: A TIMELINE OF ACHIEVEMENT

## Highlights of 2018

Over 2 million visits from 229 countries were logged, with an average visit lasting around 2 minutes

Server upgraded once more to meet continuing and increasing demands and introduction of CloudFlare to be able to regulate the continuing increase in visitors from all over the world.





# CARDIONETWORKS RESOURCES

Cardionetworks' first project was ECGpedia.org, an online electrocardiography course. We have since created, and continue to maintain, around 30 individual websites, all dedicated to improving medical knowledge in the field of cardiology. We subscribe to the HONcode principles of the Health On the Net Foundation.

Anyone can contribute to the Cardionetworks websites through Mediawiki software. We welcome all improvements to our websites. All suggestions for improvement are screened by physician moderators.

## ECGpedia

ECGpedia is a free electrocardiography (ECG) course and textbook designed for medical professionals such as cardiac care nurses and physicians. It is the primary website of the CardioNetworks Foundation. Since its foundation ECGpedia has become an important source of up-to-date information on ECG interpretation. The website now includes more than 2500 example ECG's provided by contributors around the world. Current efforts are directed towards improvement of the readability of the websites, more interactivity with visitors (quizzes and polls). A comprehensive online ECG basics course with exam is now available (moodle.ecgpedia.org). In addition, an iBook version of the website has been developed.

## Textbook of Cardiology

The Textbook of Cardiology is an up-to-date and freely accessible online cardiovascular reference work. This is a project in collaboration with the Health[e]Foundation. The Health[e]Foundation has much experience with HIV education for medical professionals in developing countries. Requests came forward from participants for cardiovascular education. In collaboration the textbook has now been written. It will be made available online by Cardionetworks and offline by the Health[e] Foundation which will include the text on USB sticks that are distributed through their network.

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Anyone can  
contribute to  
Cardionetworks.  
We welcome all  
improvements to  
our websites.

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# Contributors to the online Textbook of Cardiology

## *Editors*

- Jonas S.S.G. de Jong, MD, PhD, FESC, OLVG, The Netherlands
- Fransje van der Waals, MD, PhD, The Netherlands

## *Authors*

- Renée van den Brink, MD PhD, AMC, The Netherlands
- Alex Crystal, MD, USA
- Peter Damman, MD, AMC, The Netherlands
- Ronak Delewi, MD, AMC, The Netherlands
- James Heilman, MD, CCFP-EM, Clinical Assistant Professor
- Tim van de Hoef, MD, AMC, The Netherlands
- S. Yen Ho, PhD FRCPATH FESC FHEA, Royal Brompton Hospital, UK
- John Kastelein, MD, PhD, AMC, The Netherlands
- Wouter Kok, MD, PhD, AMC, The Netherlands
- Sébastien Krul, MD, AMC, The Netherlands
- Alice Li, MD, PhD, USA
- Heather Melrose, Manchester, UK
- Barbara Mulder, MD, AMC, The Netherlands
- Ineke Nederend, AMC, The Netherlands
- Louise Olde Nordkamp, MD, AMC, The Netherlands
- Annelieke van Riel, MD, AMC, The Netherlands
- Josien Rozenburg, MSc, The Netherlands
- Hayang Yang, AMC, The Netherlands
- Esther Wiegerinck, AMC, The Netherlands
- Arthur Wilde, MD, PhD, AMC, The Netherlands
- Janneke Wittekoek, MD, PhD, The Netherlands
- Pier Woudstra, MD, AMC, The Netherlands

## Echopedia

Echopedia is a free echocardiography textbook, designed for medical professionals such as cardiologists and echocardiography technicians. The site is still under development. Echopedia now contains more than 900 echocardiogram images from more than 170 cases provided by the AMC Echolab. An overview of all echocardiographic normal values is now presented on the website. In 2013 we received an excellent contribution of basic text chapters that were missing and are currently being converted to the website format.

## PCIpedia

PCIpedia is a free textbook on intervention cardiology, designed for medical professionals such as cardiologists and cathlab technicians. The site is still under development. The first batch of coronary angiography cases is now online. Also, a start has been made to introduce visitors to angiographic coronary anatomy and technique. A pocket reference card has been developed and printed to give a quick review of coronary angiographic views.

## BrugadaDrugs.org

The Brugada syndrome has been recognized as an important cause of sudden cardiac death in individuals at a relatively young age. Many drugs have been associated with adverse events in Brugada-syndrome patients. These drugs may either induce life-threatening ventricular arrhythmias and/or induce the characteristic Brugada syndrome-linked ECG abnormalities which are associated with poor outcome.

BrugadaDrugs.org provides an overview on the available evidence and expert opinion regarding drug safety in Brugada syndrome. And is the result of a recently performed review of the literature. BrugadaDrugs.org ensures worldwide and up-to-date availability of this knowledge base to physicians and patients. This site was launched by Pieter Postema and is hosted by Cardionetworks.

## Foundation websites

[www.brugadadrugs.org](http://www.brugadadrugs.org)

[www.cardiolinks.org](http://www.cardiolinks.org)

[www.cardionetworks.org](http://www.cardionetworks.org)

[www.ecgpedia.org](http://www.ecgpedia.org)

[www.echopedia.org](http://www.echopedia.org)

[www.pcipedia.org](http://www.pcipedia.org)

[www.syncopedia.org](http://www.syncopedia.org)

[www.textbookofcardiology.org](http://www.textbookofcardiology.org)

[www.thefailingheart.org](http://www.thefailingheart.org)

[www.thrombopedia.org](http://www.thrombopedia.org)

## Offline content

While the majority of our effort at Cardionetworks is focused towards delivering high-quality, freely-available medical information over the Internet, we also offer certain information and training offline.

ECGpedia pocket cards are available and have been proved very popular. They can be printed out online, and ordered in a full colour and laminated print. More than 12000 preprinted cards have been distributed.

Live ECGpedia courses have proved very popular amongst the following groups:

- Dutch medical students
- Anesthetist residents
- General practioners
- Junior doctors
- Anesthesia and internal medicine residents

A PCIpedia pocket card has been published

An Echopedia pocket card has been published

## Visit statistics 2018:

[en.ecgpedia.org](https://en.ecgpedia.org)

1.165.229

[cmrpedia.org](https://cmrpedia.org)

332

[echopedia.org](https://echopedia.org)

431.724

[brugadadrugs.org](https://brugadadrugs.org)

72.996

[textbookofcardiology.org](https://textbookofcardiology.org)

59.689

[thrombopedia.org](https://thrombopedia.org)

Cloudflare

[pcipedia.org](https://pcipedia.org)

Cloudflare

[cardionetworks.org](https://cardionetworks.org)

4.721

[syncopedia.org](https://syncopedia.org)

12.178

# FOUNDATION BOARD



**Jonas S.S.G. de Jong, MD, PhD, FESC**  
Chair

Cardiologist , electrophysiologist  
Onze Lieve Vrouwe Gasthuis  
The Netherlands.



**Pieter G. Postema, MD, PhD**  
Secretary

Cardiologist, electrophysiologist  
Amsterdam University Medical Centers, Academic  
Medical Centre, University of Amsterdam  
The Netherlands.



**Christian van der Werf, MD, PhD**  
Treasurer

Cardiologist  
Amsterdam University Medical Centers, Academic Medical  
Centre, University of Amsterdam  
The Netherlands

# COMMERCIAL BENEFACTORS OF THE FOUNDATION IN 2018:

~NONE~

## PREVIOUS YEARS COMMERCIAL SPONSORS



# FINANCIAL REPORT

Accounts 01.01.2018	10678		
Revenues		Expenses	
Benefactors	0	Banking	112
Website development	4376	Webhosting costs	2101
Reference card & book revenues	1614	Content development & office	679
		Reference cards	826
		Reservation	0
Total	3781		3552

Accounts 31.12.2018	10907		
Balance sheet 2018			
Assets		Debts	
Accounts	10907	Capital	10907
		Accounts payable	0
Total	10907		10907



# CARDIONETWORKS' MISSION

“To improve medical knowledge, especially in the field of cardiology, and to provide access to this knowledge by facilitating publications in digital or other form, amongst other by building and maintaining websites.”

# CONTACT

## The Cardionetworks Foundation

[www.cardionetworks.org](http://www.cardionetworks.org)

[info@cardionetworks.org](mailto:info@cardionetworks.org)

VAT/Fiscal number NL8179.99.474B01

ING Bank account IBAN NL55PSTB0002382426

Registered with the Chamber of Commerce Amsterdam

KVK 34274298 (as: Stichting Cardionetworks)

The Dutch Tax Administration has designated the Cardionetworks Foundation as an Public Benefit Organisation (ANBI, Algemeen Nut Beogende Instelling). Gifts to the Cardionetworks Foundation can be tax deducted in the Netherlands. This not only applies to the deduction of donations for the income tax but also to the company tax and inheritance tax.

# CREATIVE COMMONS

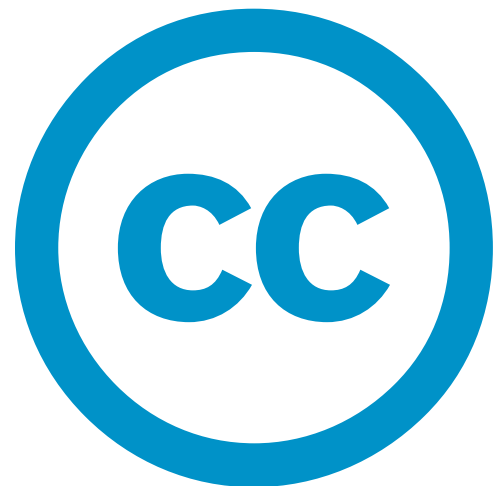
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to Remix — to adapt the work.



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