

# ECFS NEWSLETTER - Issue 58 - September 2018

01. Letter from the President
02. Annual General Meeting - Minutes
03. ECFS Board Elections
04. ECFS Award
05. CTN - 3<sup>rd</sup> wave of expansion
06. In memoriam Peter Durie
07. CF Research News
08. 13<sup>th</sup> European CF Young Investigators Meeting
09. Upcoming Events
10. Deadlines
11. 2018 Belgrade - Free Registration Winners
12. Vertex Innovation Awards (VIA)
13. Current references in CF

01. Letter from the President

Dear Friends,

I hope this finds you well and that you all had a chance to enjoy some relaxing summer vacation. For those of you who participated in the June ECFS Conference in Belgrade, I am sure you will agree that it was a great success, and I would again like to thank the conference President Predrag Minic for his contribution to the event. I would also like to thank the local Cystic Fibrosis community and all the volunteers for their considerable and enthusiastic support. My sincere thanks go to the Scientific Committee who produced an excellent programme, and to the speakers, moderators and presenters for their superb contribution.

The ECFS continued its tradition of awarding grants to young researchers based on the merit of their submitted abstracts, and we were happy to support 18 young researchers with a Travel Grant. We also granted 3 Young Investigator Awards and were delighted to welcome the Young Investigator Awardees to the Closing Ceremony. All the award winners also received a one-year free membership subscription to the ECFS.



Young Investigator Awards 2018: On the left, Samuel Lara Reyna (UK) and Iris Silva (PT), on the right Mirjam Stahl (DE).

European Cystic Fibrosis Society Kastanieparken 7, 7470 Karup, Denmark Tel: +45 86 676260 Fax: +45 86 676290 <u>info@ecfs.eu</u> www.ecfs.eu To honour the enormous contribution of Prof. Gerd Döring, the ECFS initiated a Gerd Döring Award in 2015 that is given annually to honour an exceptional early career young European scientist. This award includes a monetary grant of  $\notin$  5000 to support research.

This year, the Award was presented to Tavs Qvist (DK) for his manuscript about an antibody assay for diagnosing *Mycobacterium abscessus* published in Science in 2016.

# More information on the ECFS Awards

Once again, speakers at this year's conference were asked to make their presentations (slides) available on the ECFS website (for members only) and these can be viewed by signing in under the "MY ECFS" tab on the homepage of our website <u>www.ecfs.eu</u>.

Kris De Boeck finished her mandate as ECFS president in June. Significant successes have been achieved for the Society under her leadership and we warmly thank her for her enthusiasm, dedication and vision.



Thanks go to all of you who participated to the Board elections. We are happy to announce that Jane Davies, Pavel Drevinek and Barry Plant have been elected as ECFS Board members. We also thank Daniel Peckham who finished his mandate as Board member and also congratulate him as he accepted to lead the ECFS Education Project. We also warmly thank Harm Tiddens for his commitment through the years as he finished his mandate as Secretary of the ECFS.

We would also like to warmly thank Tim Lee who has been a wonderful CTN Director and Pavel Drevinek who successfully led the Standards of Care project. We welcome Silke van Koningsbruggen-Rietschel and Carlo Castellani as the new Directors of CTN and the Standards of Care project.

We are well into the planning for the Basic Science Conference which will be held in Dubrovnik, Croatia 27-30 March 2019, and the Annual conference which will be held 05-08 June 2019 in Liverpool. Programmes for both conferences will be available soon and we hope that you will take an active part in these events and consider submitting your best work for presentation and discussion. The abstract submission deadline for the conference in Liverpool will be 18 January 2019. More information about the conferences can be found on our website.

I would like to thank those members who participated in this year's Annual General Meeting in Belgrade, and you will find the minutes from the meeting included in this Newsletter.

Finally, I would like to draw your attention to the new General Data Protection Regulation (GDPR). The Regulation aims to reduce the collection of data from consumers without their knowledge and without transparency. We therefore need your consent to continue communicating with you. Please log in to your ECFS account, check your personal information profile settings so that we can continue sending you newsletters and information of interest to members.

As always, I would like to remind you to please feel free to send us articles that you would like to have included in forthcoming newsletters as this provides a great vehicle for communication.

Best wishes,

Isabelle Fajac, ECFS President



# 02. Annual General Meeting Minutes

# Minutes of the Annual General Meeting of the European Cystic Fibrosis Society

# 41<sup>st</sup> European Cystic Fibrosis Conference, Belgrade, Serbia, 8<sup>th</sup> June 2018

Presiding Officer: Prof. Isabelle Fajac

The meeting was opened at 18.30. Number of Participants: 57

# President's Report

Prof. Isabelle Fajac welcomed the ECFS members present and thanked them for their participation in the meeting. She thanked Prof. Kris De Boeck for her leadership of the ECFS in the last 3 years and commended her for being a person with a vision so inspirational to others.

She presented the agenda of the AGM and noted that reports on the current ECFS Projects and Working Groups had been provided ahead of the meeting and Coordinators of these projects would be ready to answer questions on their activities later on in the meeting.

Regarding ECFS conferences, she reported current figures of 1832 delegates registered for the Belgrade conference from 56 countries and 477 abstracts had been submitted. She underlined the importance of bringing the conference to this area of Europe and was happy at the numbers although lower than in previous years. She took the opportunity to thank the Conference President and all the other organizers for their contribution to a smooth preparation of the conference.

She went on to provide an overview of the ECFS activities this year, beginning with the Steering Committee meetings of the CTN, ECFSPR and Standards of Care in January and the ECFS Diagnostic Network Working Group meeting in St Gallen in February. She mentioned the highly successful Basic Science conference held in Loutraki, Greece where a record number of abstract submissions were received.

The President then presented the programme of activities for 2018-2019 to include:

Prof. Fajac presented the breadth of ECFS activities, including the major projects of the ECFS, the Working Groups and Special Interest Groups.

She highlighted recently approved Working Groups, the ECFS Fungal Pathogens Working Group and the ECFS Pulmonary Exacerbations Working Group and encouraged all interested to get in contact with the coordinators. She also mentioned continuing CFTR gene sequencing service with a goal to see 95% of patients with CF in every country to have 2 mutations identified.

Regarding the strategic plan to maximize progress in CF therapies, she announced that a document was made available for public comment and invited all to check the ECFS website and contribute by the deadline of 31 July 2018.

She was happy to report that the ECFS Book dedicated to infants and young children, The Early CF Years, was now published. She warmly thanked the editors, Kevin Southern and Kris De Boeck and all the authors of the different chapters. All ECFS members will receive a copy of the ECFS book by post.

Prof. Fajac presented some activities where active participation of ECFS members is strongly encouraged.

- Board elections
- ECFS Community bulletin boards (including job offers, collaborations asked and other announcements)
- Proposal box for ECFS members at the conference where suggestions for project opportunities and questions to ECFS board can be asked.
- Suggestions for tomorrow lounge activities
- Special interest groups associated with ECFS
- Social media

The audience was asked for any questions: none received

# Secretary's Report

Prof. Harm Tiddens reported the preliminary membership numbers for 2018 (until May) were 796, a substantial decrease in comparison with the figures reported at the same time frame in 2017 (986). One of the reasons for this could be the lower level of attendance to the conference and correlated lower number of members taking membership while registering. He encouraged all to advocate ECFS membership.

In view of the healthy financial situation of the Society, he was happy to inform the membership that there would be no increase to the standard subscription fee in 2019; it will remain at Euro 120. There will be a continued lower rate for some categories of members who do not wish to receive the Journal of Cystic Fibrosis (JCF):

- Allied Health Professionals, PhD Students and Post Docs - 50  $\in$  (\*)

• Retired members still actively engaged in an ECFS Project or Working Group - Free (\*)

• Corporate membership rate for colleagues from the industry - 220 € (full membership benefits but no voting rights).

(\*) no JCF subscription associated with this rate

The discounted 3 years subscription (300 € instead of 360 €) introduced in 2015 will be offered as a membership possibility for the years 2019-2020-2021

The audience was asked for any questions: none received

# Treasurer's Report

Prof. Harm Tiddens presented the audited ECFS Financial statement for the year 2017. The result of the year was very favourable thanks to very good return on interests, with a surplus of  $\notin$  201,423 resulting in a positive balance for the Society's net assets of  $\notin$  3,107,757 at 31st December 2017. He felt that keeping 2 to 3 years reserve was common practice and deemed that the level of expenses and commitment the Society has justified such a level of funds set aside. Prof. Tiddens informed the AGM that the full audited accounts will be posted on the website.

The audience was asked for any questions: none received

# **ECFS Board Elections**

Prof. Fajac communicated the results of the recent elections. She thanked the departing Board members, Kris De Boeck, Harm Tiddens, Daniel Peckham for their commitment and support. She also thanked Pavel Drevinek for his leadership of the Standards of Care project. She was happy to announce the election of Prof. Jane Davies, Prof. Pavel Drevinek and Prof. Barry Plant as Board members. She also announced that the Board had decided to include Education as a major project of the ECFS and appointed Prof. Daniel Peckham as first Director for 3 years. Finally, she was happy to announce that Dr. Carlo Castellani had agreed to take on the role of Director for the Standards of Care project.

# Update on Journal of Cystic Fibrosis

Prof. Scott Bell reported on developments of JCF. There were 452 submissions and 152 Original Research Articles and Reviews published in 2017.

There has been a steady increase in the number of Science Direct downloads (over 650,000).

New initiatives and recent changes include:

- Editorial board: retiring members are Isabelle Fajac and Martin Schwartz. Newly appointed as editors: Laura Sherrard, Pascale Fanen and Pierre-Regis Burgel
- Lancet Respiratory Medicine / JCF partnership: papers found more suitable to JCF than LRM sent to JCF
- Joint LRM/JCF symposium at conference: successful in 2016, 2017 and Belgrade 2018
- CF Research News: Very engaged with a total of 294 articles submitted and over 90 % of JCF articles translated in lay language.

He showed a slide with the Top Cited articles from the start of JCF demonstrating the importance of guidelines to be published in JCF.

Finally, Prof. Bell underlined the need for enthusiastic reviewers for JCF.

The audience was asked for any questions:

- Lena Hjelte wondered whether the page limit should be set higher to allow more being published.

Scott Bell specified that time between acceptance and print has been reduced from 10 months to 2 issues, which indicates that the page number is right.

- Vincent Gulmans announced that the CF Research News would be made more preeminent on CF Europe

website and that the articles would be translated in more than 20 languages.

All felt this was important news and a very welcome initiative.

# Report from ECFS CTN

Dr. Silke van Koningsbruggen-Rietschel thanked the ECFS CTN team and Executive committee for their commitment and hard work in a pleasant atmosphere. She also thanked all those committed in the different CTN committees for their hard work and dedication to the success of the CTN.

She presented a graph demonstrating the progression of studies conducted by the CTN since 2009.

She also presented the evolution of the CTN services including number of protocols reviewed and number of feasibility checks performed. She reported 16 Protocol Reviews performed and 5 ongoing as of June 2018 and 5 Feasibilities finalized in May 2018 as well as 2 ongoing.

All CTN sites have received detailed weighted quality reports and metrics and low performing sites have been offered the possibility to enter a coaching programme before reapplying to be part of the CTN.

She thanked the Cystic Fibrosis Foundation for their support of the Additional Research Capacity Award and for funding quality management. She also thanked all CTN sites for data entry into the Trial Management System. She announced the new ECFS CTN expansion call for applications with a deadline of October 15 2018. Application form is available at ecfs-ctn@uzleuven.be.

The audience was asked for any questions: none received

# Report from ECFS Standards of Care

Prof. Pavel Drevinek reported on the progress of the Standards of Care project.

The best practice subgroup reviewed and updated the 2014 Standards of Care. The document, ECFS Best practice guidelines: the 2018 revision, has now been published in open access. A report on a survey of Standards of care in Eastern Europe was also published recently.

The Quality Management subgroup finalised a quality management module for the Education platform. Also, a module for benchmarking across countries/centres is now released in the ECFSTracker.

The Standards of Care next steps will be:

-Quality Standards in adults to assess implementation of Standards of Care

-Benchmarking: dissemination

-Best practice: ECFS Book proposal on CF pharmacopoeia

-Guideline for guidelines

-Cooperation with ERN-LUNG

Pavel Drevinek is finishing his term in office and Carlo Castellani will be taking over from the AGM 2018. Finally, Pavel Drevinek thanked all the support during his term as Director of the Standards of Care and thanked Dr Carlo Castellani for taking on the leadership of this important project.

The audience was asked for any questions: none received

# Report from ECFS Patient Registry

Dr. Luz Naehrlich reported on the activities of the ECFS Patient Registry (ECFSPR). He briefly presented the ECFSPR business plan for the years 2018-2020.

-Publish the ECFSPR Annual Report within 18 months of the close of a calendar year: He was happy to announce that the 2016 data report was published and reports 44719 patients in 31 countries.

-Strengthen the quality of data both in the ECFSPR database and at the site: An agreement is in place with the University of Mainz related to the development of Standard Operating Procedures and onsite monitoring visits. -Increase scientific output: he announced a renewed and expanded Scientific Committee and several publications in the pipeline

-Improve the software platform ECFSTracker: The platform will be updated to version 2.0 and available later in the year with the first hands on training sessions already taking place in Belgrade.

-Continue the cooperation with CF patient organisations: At-a-glance report and social media

-Increase coverage to reach 80% or higher in countries participating to the ECFSPR.

-Develop a standard operating procedure to handle and perform pharmacovigilance requests.

Finally, Dr Naehrlich thanked all partners and sponsors of the ECFSPR activities.

The audience was asked for any questions: none received

# **Report from ECFS Education**

Prof. Daniel Peckham reported on the ECFS Education project. The aim of the ECFS Education is to strengthen the ECFS educational activities and streamline Education on Cystic Fibrosis.

An ECFS Education committee has been formed and includes 1 representative of each ECFS Working group, Special Interest Group and project (standards of care, CTN, Registry). The aims of the committee are to work closely with members and support the development of a clear curriculum appropriate to each sub speciality. The committee will advise on existing educational resources to be referenced, assess unmet educational needs and support the development of educational modules.

Terms of Reference for the group as well as standard procedures documents are being developed. Prof. Peckham also reported that the Education platform is set up and content continues being developed. At the Belgrade conference, the adult CF course, Nutrition masterclass, introductory course in Cognitive Behavioural Therapy will be filmed as well as a substantial number of symposia.

The audience was asked for any questions: none received

# Reports from ECFS Working Groups

Prior to the Annual General Meeting, members had been sent the progress reports from the ECFS Working Groups.

Current Working Groups: Diagnostics Network Working Group Exercise Working Group Neonatal Screening Working Group Cystic Fibrosis Molecular & Cell Biology and Physiology Basic Science Working Group Mental Health Working Group International Working Group on Antimicrobial Resistance Fungal Pathogens Working Group Pulmonary Exacerbations

The audience was asked for any questions: None received.

# Reports from ECFS Special Interest Groups

Prior to the Annual General Meeting, members had been sent the progress reports from the ECFS Special Interest Groups. ECFS Nurse Specialist Interest Group (ECFS NSiG) European Cystic Fibrosis Pharmacy Group (ECFPG) ECFS Psychosocial Working Group European Cystic Fibrosis Nutrition Group

The audience was asked for any questions: None received.

# Annual Conference 2019

A slide was shown presenting the 42nd ECFS conference, to be held in Liverpool, United Kingdom, 5-8 June 2019. Jane Davies, Conference President, invited all to attend the conference.

<u>Any Other Business</u> None

With no further items being raised, the meeting ended at 19.30.

# **03. ECFS Board elections**



The ECFS is happy to announce the results of the 2018 board elections. We had 3 positions open. Jane Davies, Pavel Drevinek and Barry Plant join the Board for a 3-year mandate.

# 04. ECFS Award - Dr. Susan Madge

In Belgrade, we were happy to hand over the ECFS Award to Dr. Susan Madge. This award acknowledges her remarkable contribution in the development of multidisciplinary care for people with cystic fibrosis, Su has lived through the transition of CF from a disease of childhood to predominantly a disease of adults. Her vision has been to ensure that the best care possible is available to people with CF of any age.



Once again, we extend our congratulations!

# 05. CTN - 3<sup>rd</sup> wave of expansion

The ECFS is pleased to announce a third wave of expansion of the ECFS-Clinical Trials Network (ECFS-CTN). The ECFS-CTN is a network of 43 Specialist Cystic Fibrosis Centres from 15 countries in Europe and Israel who are committed to a coordinated strategic approach to CF clinical trials in Europe and worldwide. This is done by sharing expertise, reviewing clinical trial protocols, maintaining high quality within sites, standardising outcome measures, validating new and alternative endpoints, providing training to the site's staff and involving and cooperating with all stakeholders.

The ECFS is inviting further applications from CF Centres to become Clinical Research Centres in this Network. An Evaluation Board will be appointed by the Board of the ECFS. The Evaluation Board will be responsible for the ranking of the received applications.

The deadline for submission of the application form is October 15th 2018. The results of the selection will be officially announced at the ECFS conference in Liverpool, June 2019 and the new centres will actually join the network in January 2020.

Please feel free to forward this information to other centres that might be interested.

More information

# 06. In memoriam Prof. Peter Durie



Peter Durie, one of the world's outstanding pediatric pancreatologists who had a crucial role in understanding the pancreatic and gastrointestinal pathology in CF passed away last month.

He was born in Kenya and after his family returned to the UK, Peter graduated from the University of Wales in 1966 with an Honours degree in Zoology. He emigrated to Canada and began a career as a teacher. Then he made an ingenious decision to choose Judy, an English kindergarten teacher to be his wife. Without doubt she has been a pillar of strength and support throughout his life.

Peter then made a switch and entered Medical School, the McMaster Program in Hamilton, Ontario which had a new style of medical education. Dr. Richard Hamilton who was Division Chief at the Hospital for Sick Children wrote that the system there produced a generation of free-thinking troublemakers like Peter Durie! Peter joined the Pediatric Residency program in 1974 and subsequently entered Pediatric Gastroenterology at the Hospital for Sick Children.

Peter Durie was a Professor in the Department of Pediatrics, Faculty of Medicine University of Toronto and Staff Gastroenterologist, the Division of Gastroenterology, Hepatology and Nutrition and Senior Scientist in the Research Institute, the Hospital for Sick Children and was the Director of Cystic Fibrosis Research.

Peter's achievements at working at the interface between basic pathophysiology, front-line genetic research and clinical science made him the archetypal Clinician Scientist. He was an independent investigator at The Hospital for Sick Children with the prime focus of his research being the exocrine pancreas. He was the prime mover behind the pathophysiological studies of the pancreas in CF. After the CFTR gene was discovered in 1989 at the Hospital for Sick Children, Dr Durie characterized and demonstrated the genetic differences between PI and PS patients and made outstanding contributions in all aspects of CF including genetics, genotype/phenotype, CF liver disease, infertility and diabetes.

He was an ever- present at CF meetings around the world and was comfortable chairing basic science, gastroenterology or clinical nutrition sessions.

Throughout his career, Peter Durie maintained an exceedingly high level of commitment to patient care. He was a superb clinician and over 30 Fellows from all over the world learned a huge amount from him. He brought the bench to the bedside quicker than most and was truly loved by his patients and their families. He received many awards including the Paul di Saint Agnese Distinguished Scientific Achievement award from the North American CF Foundation.

He was my mentor and continued to support my career long after completion of Fellowship in Toronto. He was fond of the ECFS and a regular presenter for many years. He was very supportive of the setting up of the Diagnostic Network of ECFS and attended the initial meeting at ECFS.

He had an unparalleled integrity in research and caused more stringent guidelines on Industry supported research Peter was a world leader in exocrine pancreatic research, a real ambassador for CF, an innovative thinker, a renowned educator and maybe even above all this, a genuinely kind, modest, compassionate human being and a model family man.

After terrible suffering in recent years he passed away on August the 27th.

He will be sorely missed by his wife, children and grandchildren and all those who had the privilege to know and learn from him.

Michael Wilschanski

# 07. CF Research News

With the <u>CF Research News</u> we want to provide access to patients, parents, relatives, friends and caregivers of patients with CF to all scientific work published in the Journal of Cystic Fibrosis (JCF). For more than 3 years, we publish every week lay version summaries of work published in the JCF.

<u>CF Europe</u> and <u>Cystic Fibrosis Australia</u> also publish our articles on their websites, and several patient organisations do translate some of the articles in other languages.

Recently, a few colleagues from the US also provided us lay version summaries of papers they have published in other journals and we are happy to also post them on our page as it contributes to bridge the gap between people with CF and the researchers investigating CF.

# 08. 13th European CF Young Investigators Meeting

The ECFS and the Patients organisations will jointly organise the 13th European CF Young Investigators Meeting at the Institute Pasteur in Paris on 27 February - 01 March 2019. It aims at fostering interactions between young scientists in order to create a long-term collaborative European network of CF investigators. The meeting will cover all CF research fields, considering basic research and clinical research. More information

Deadline for application: 04 November 2018

# 09. Upcoming Events



**Dubrovnik, Croatia** 27-30 March 2019 ECFS 16<sup>th</sup> Basic Science Conference Denver, CO, US 17 October 2018: ECFS Board Meeting 18-20 October 2018: 33rd North American Cystic Fibrosis Conference

**Brussels, Belgium** 23 January 2019: ECFS Winter Board Meeting 24 January 2019: ECFS Standards of Care Meeting 24-25 January 2019: ECFS CTN Steering Group Meeting 25 January 2019: ECFS Patient Registry Steering Group Meeting

Tunis, Tunisia 14-16 February 2019 ECFS Diagnostic Network Working Group Meeting

Paris, France 27-February - 01 March 2019 13<sup>th</sup> European Young Investigators Meeting Abstract submission from 01 October to 04 November 2018

Liverpool, United Kingdom 04 June 2019: ECFS Board Meeting 05-08 June 2019: 42nd European CF Conference

# 10. Deadlines

- Comments Lung Transplant Referral for Individuals with Cystic Fibrosis: CFF Consensus Guidelines,

- Abstract submission Young Investigator Meeting 04 November 201	8
- Abstract submission 16th ECFS Basic Science conference 11 January 201	9
- Abstract submission ECFS Conference Liverpool 18 January 201	9
- Nomination ECFS Award 15 February 201	9
- Nomination Gerd Döring Award 15 February 201	9
- Nomination ECFS Elections 30 March 201	9

# 11. 2018 Belgrade Conference Survey - Free Registration Winners





The ECFS would like to thank all those who took the time to answer the ECFS 2018 Survey after the conference in Belgrade. The answers and comments help us to keep on improving our conferences.

As announced, three free registrations to the next ECFS Conference in Liverpool were selected from the respondents.

We congratulate the winners:

- Anita Senstad Wathne, Norway
- Snežana Živanović, Serbia
- Nicolas Richard, France

# 12. Vertex Innovation Awards (VIA)



The Vertex Innovation Awards (VIA) Committee is pleased to announce that applications are now open for the VIA 2019 awards programme to support innovative clinical research that may improve the care of patients with cystic fibrosis. The VIA Committee will select up to four projects to support with grants up to a total of €750,000. Deadline for submission: 09 November 2018 FIND OUT MORE: http://vertexinnovationawards.com/

# 13. Current references in CF

Please scroll to next page for full list.

# **CF Reference List**

(compiled between May & September 2018) Adults & Adolescents

Allgood SJ., Kozachik S., Alexander KA., Thaxton A., Vera M., Lechtzin N. Descriptions of the Pain Experience in Adults and Adolescents with

Cystic Fibrosis Pain Management Nursing 2018; 19: 340 - 347

Bernstein RM., Riekert KA., Quittner AL. Measuring Knowledge of Disease Management in Adolescents with Cystic Fibrosis: Initial Psychometric Evaluation Pediatric Allergy Immunology and Pulmonology 2018; 9: ArtNo: 306

Chatterjee K., Goyal A., Reddy D., Koppurapu V., Innabi A., Alzghoul B., Jagana R.

Prevalence and predictors of readmissions among adults with cystic fibrosis in the United States

Advances in Respiratory Medicine 2018; 86: 75 - 77

**Durieu I., Reynaud Q., Lega JC.** Transition: From pediatric to adult care center *Revue de Medecine Interne 2018; 39: A45 - A47* 

Kazmerski TM., Hill K., Prushinskaya O., Nelson E., Greenberg J., Pitts SAB., Borrero S., Miller E., Sawicki GS. Perspectives of adolescent girls with cystic fibrosis and parents on disease-specific sexual and reproductive health education *Pediatric Pulmonology 2018; 53: 1027 - 1034* 

Nap-van der Vlist MM., Burghard M., Hulzebos HJ., Doeleman WR., Heijerman HGM., van der Ent CK., Nijhof SL.

Prevalence of severe fatigue among adults with cystic fibrosis: A single center study

Journal of Cystic Fibrosis 2018; 17: 368 - 374

# Rousset-Jablonski C., Reynaud Q., Nove-Josserand R., Durupt S., Durieu I.

Gynecological management and follow-up in women with cystic fibrosis

Revue des Maladies Respiratoires 2018; 35: 592 - 603

Saez-Flores E., Tonarely NA., Barker DH., Quittner AL. Examining the Stability of the Hospital Anxiety and Depression Scale Factor Structure in Adolescents and Young Adults With Cystic Fibrosis: A Confirmatory Factor Analysis

Journal of Pediatric Psychology 2018; 43: 625 - 635

# Seller EP., Juan PM.

Analysis of social and work reality of adult people with Cystic Fibrosis disease: The situation of the Murcia Region (Spain) Interaccion Y Perspectiva 2018; 8: 47 - 66

# Stevens D., Neyedli HF.

Clinical Model of Exercise-Related Dyspnea in Adult Patients With Cystic Fibrosis

Journal of Cardiopulmonary Rehabilitation and Prevention 2018; 38: 187 - 192

# **Animal Model**

## Hahn A., Salomon JJ., Leitz D., Feigenbutz D., Korsch L., Lisewski I., Schrimpf K., Millar-Buchner P., Mall MA., Frings S., Mohrlen F.

Expression and function of Anoctamin 1/TMEM16A calciumactivated chloride channels in airways of in vivo mouse models for cystic fibrosis research

Pflugers Archiv-European Journal of Physiology 2018; 470: 1335 - 1348

McHugh DR., Steele MS., Valerio DM., Miron A., Mann RJ., LePage DF., Conlon RA., Cotton CU., Drumm ML., Hodges CA. A G542X cystic fibrosis mouse model for examining nonsense mutation directed therapies

PLoS One 2018; 13: 6:e0199573

Meyerholz DK., Stoltz DA., Gansemer ND., Ernst SE., Cook DP., Strub MD., LeClair EN., Barker CK., Adam RJ., Leidinger MR., Gibson-Corley KN., Karp PH., Welsh MJ., McCray PB.

Lack of cystic fibrosis transmembrane conductance regulator disrupts fetal airway development in pigs Laboratory Investigation 2018; 98: 825 - 838

Philp AR., Riquelme TT., Millar-Buchner P., Gonzalez R., Sepulveda FV., Cid LP., Flores CA. Kcnn4 is a modifier gene of intestinal cystic fibrosis preventing lethality in the Cftr-F508del mouse *Scientific Reports 2018; 8: ArtNo: 9320* 

Portal C., Gouyer V., Leonard R., Husson MO., Gottrand F., Desseyn JL.

Long-term dietary (n-3) polyunsaturated fatty acids show benefits to the lungs of CFTR F508del mice *PLoS One 2018; 13: 6:e0197808* 

Rosen BH., Chanson M., Gawenis LR., Liu JH., Sofoluwe A., Zoso A., Engelhardt JF. Animal and model systems for studying cystic fibrosis *Journal of Cystic Fibrosis 2018; 17:* 

Rosen BH., Evans TIA., Moll SR., Gray JS., Liang B., Sun XS., Zhang YL., Jensen-Cody CW., Swatek AM., Zhou WH., He N., Rotti PG., Tyler SR., Keiser NW., Anderson PJ., Brooks L., Li YL., Pope RM., Rajput M., Hoffman EA., Wang K. Infection Is Not Required for Mucoinflammatory Lung Disease in CFTR-Knockout Ferrets

American Journal of Respiratory and Critical Care Medicine 2018; 197: 1308 - 1318

Sandri A., Ortombina A., Boschi F., Cremonini E., Boaretti M., Sorio C., Melotti P., Bergamini G., Lleo M. Inhibition of Pseudomonas aeruginosa secreted virulence factors reduces lung inflammation in CF mice *Virulence 2018; 9: 1008 - 1018* 

# Antimicrobials

# Ahmed MI., Mukherjee S.

Treatment for chronic methicillin-sensitive Staphylococcus aureus pulmonary infection in people with cystic fibrosis (Review) *Cochrane Database of Systematic Reviews 2018; : 7:CD011581* 

Al-Nemrawi NK., Alshraiedeh NAH., Zayed AL., Altaani BM. Low Molecular Weight Chitosan-Coated PLGA Nanoparticles for Pulmonary Delivery of Tobramycin for Cystic Fibrosis *Pharmaceuticals 2018; 11: 1:UNSP 28* 

# Al-Obaidi H., Kalgudi R., Zariwala MG.

Fabrication of inhaled hybrid silver/ciprofloxacin nanoparticles with synergetic effect against Pseudomonas aeruginosa *European Journal of Pharmaceutics and Biopharmaceutics 2018;* 128: 27 - 35

Ashkenazi M., Sity S., Sarouk I., El Bar Aluma B., Dagan A., Bezalel Y., Bentur L., De Boeck K., Efrati O.

Omalizumab in allergic bronchopulmonary aspergillosis in patients with cystic fibrosis

Journal of Asthma and Allergy 2018; 11: 101 - 107

Avedissian SN., Miglis C., Kubin CJ., Rhodes NJ., Yin MT., Cremers S., Prickett M., Scheetz MH.

Polymyxin B Pharmacokinetics in Adult Cystic Fibrosis Patients Pharmacotherapy 2018; 38: 730 - 738

# Bahamondez-Canas TF., Ferrati S., Moraga-Espinoza DF., Smyth HDC.

Development, Characterization, and In Vitro Testing of Co-Delivered Antimicrobial Dry Powder Formulation for the Treatment of Pseudomonas aeruginosa Biofilms

Journal of Pharmaceutical Sciences 2018; 107: 2172 - 2178

Bjornson C., Chan P., Li A., Paes B., Lanctot KL., Mitchell I.

Palivizumab prophylaxis for respiratory syncytial virus in infants with cystic fibrosis: is there a need?

European Journal of Clinical Microbiology & Infectious Diseases 2018; 37: 1113 - 1118

# Burgard M., Sandaradura I., van Hal SJ., Stacey S., Hennig S.

Evaluation of Tobramycin Exposure Predictions in Three Bayesian Forecasting Programmes Compared with Current Clinical Practice in Children and Adults with Cystic Fibrosis Clinical Pharmacokinetics 2018; 57: 1017 - 1027

### **Burrows LL.**

The Therapeutic Pipeline for Pseudomonas aeruginosa Infections Acs Infectious Diseases 2018; 4: 1041 - 1047

### Buttini F., Balducci AG., Colombo G., Sonvico F., Montanari S., Pisi G., Rossi A., Colombo P., Bettini R.

Dose administration maneuvers and patient care in tobramycin dry powder inhalation therapy

International Journal of Pharmaceutics 2018; 548: 182 - 191

### Carnell SC., Perry JD., Borthwick L., Vollmer D., Biboy J., Facchini M., Bragonzi A., Silipo A., Vergunst AC., Vollmer W., Khan ACM., De Soyza A.

Targeting the Bacterial Cytoskeleton of the Burkholderia cepacia Complex for Antimicrobial Development: A Cautionary Tale International Journal of Molecular Sciences 2018; 19: 6:1604

### Cogen JD., Onchiri F., Emerson J., Gibson RL., Hoffman LR., Nichols DP., Rosenfeld M.

Chronic Azithromycin Use in Cystic Fibrosis and Risk of Treatment-**Emergent Respiratory Pathogens** 

Annals of the American Thoracic Society 2018; 15: 702 - 709

# Davies JC., Martin I.

New anti-pseudomonal agents for cystic fibrosis- still needed in the era of small molecule CFTR modulators?

Expert Opinion on Pharmacotherapy 2018; 19: 1327 - 1336

## Delfino E., Fucile C., Del Bono V., Marchese A., Marini V., Coppo E., Casciaro R., Minicucci L., Giacobbe DR., Martelli A., Viscoli C., Mattioli F.

Pharmacokinetics of high-dose extended-infusion meropenem during pulmonary exacerbation in adult cystic fibrosis patients: a case series New Microbiologica 2018; 41: 47 - 51

### Deschamp AR., Pettit RS., Donaldson JA., Slaven JE., Davis SD. Safety of intravenous tobramycin in combination with a variety of anti-pseudomonal antibiotics in children with cystic fibrosis Sage Open Medicine 2017; 5:

### Fiorito TM., Luther MK., Dennehy PH., LaPlante KL., Matson KL.

Nephrotoxicity With Vancomycin in the Pediatric Population: A Systematic Review and Meta-Analysis

Pediatric Infectious Disease Journal 2018; 37: 654 - 661

### Forrester JB., Steed LL., Santevecchi BA., Flume P., Palmer-Long GE., Bosso JA.

In Vitro Activity of Ceftolozane/Tazobactam vs Nonfermenting, Gram-Negative Cystic Fibrosis Isolates

Open Forum Infectious Diseases 2018; 5: 7: UNSP ofy158

### Hashemi MM., Holden BS., Taylor ME., Wilson J., Coburn J., Hilton B., Nance T., Gubler S., Genberg C., Deng S., Savage PB. Antibacterial and Antifungal Activities of Poloxamer Micelles Containing Ceragenin CSA-131 on Ciliated Tissues

Molecules 2018; 23: 3:596

# Hetenyi G., Griesser J., Fontana S., Gutierrez AM., Ellemunter H., Niedermayr K., Szabo P., Bernkop-Schnurch A.

Amikacin-containing self-emulsifying delivery systems via pulmonary administration for treatment of bacteria infections of cystic fibrosis patients

Nanomedicine 2018; 13: 717 - 732

# Hoo ZH., Campbell MJ., Curley R., Walters SJ., Wildman MJ.

Do cystic fibrosis centres with the lowest FEV1 still use the least amount of intravenous antibiotics? A registry-based comparison of intravenous antibiotic use among adult CF centres in the UK Journal of Cystic Fibrosis 2018; 17: 360 - 367

## Jiao YY., Kim TH., Tao X., Kinzig M., Landersdorfer CB., Drescher SK., Sutaria DS., Moya B., Holzgrabe U., Sorgel F., Bulitta JB.

First population pharmacokinetic analysis showing increased quinolone metabolite formation and clearance in patients with cystic fibrosis compared to healthy volunteers

European Journal of Pharmaceutical Sciences 2018; 123: 416-428

# Jhun BW., Yang B., Moon SM., Lee H., Park HY., Jeon K., Kwon OJ., Ahn J., Moon IJ., Shin SJ., Daley CL., Koh WJ.

Amikacin Inhalation as Salvage Therapy for Refractory Nontuberculous Mycobacterial Lung Disease Antimicrobial Agents and Chemotherapy 2018; 62: 7:e00011-18

### Kabulski GM., MacVane SH.

Isavuconazole pharmacokinetics in a patient with cystic fibrosis following bilateral orthotopic lung transplantation Transplant Infectious Disease 2018; 20: 3:e12878

# Kapoor P., Murphy P.

Combination antibiotics against Pseudomonas aeruginosa, representing common and rare cystic fibrosis strains from different Irish clinics Heliyon 2018; 4: 3:UNSP e00562

# Kim HR., Lee D., Eom YB.

Anti-biofilm and Anti-Virulence Efficacy of Celastrol Against Stenotrophomonas maltophilia International Journal of Medical Sciences 2018; 15: 617 - 627

# Kreicher KL., Bauschard MJ., Clemmens CS., Riva CM., Meyer TA.

Audiometric assessment of pediatric patients with cystic fibrosis Journal of Cystic Fibrosis 2018; 17: 383 - 390

# Kuti JL., Pettit RS., Neu N., Cies JJ., Lapin C., Muhlebach MS.,

Novak KJ., Nguyen ST., Saiman L., Nicolau DP. Meropenem time above the MIC exposure is predictive of response in cystic fibrosis children with acute pulmonary exacerbations Diagnostic Microbiology and Infectious Disease 2018; 91: 294 - 297

# Le Run E., Arthur M., Mainardi JL.

In Vitro and Intracellular Activity of Imipenem Combined with Rifabutin and Avibactam against Mycobacterium abscessus Antimicrobial Agents and Chemotherapy 2018; 62: 8:e00623-18;10

## Lo DKH., Muhlebach MS., Smyth AR.

Interventions for the eradication of meticillin-resistant Staphylococcus aureus (MRSA) in people with cystic fibrosis Cochrane Database of Systematic Reviews 2018; : 7:CD009650

# Maiden MM., Hunt AMA., Zachos MP., Gibson JA., Hurwitz ME., Mulks MH., Waters CM.

Triclosan Is an Aminoglycoside Adjuvant for Eradication of Pseudomonas aeruginosa Biofilms

Antimicrobial Agents and Chemotherapy 2018; 62: 6:e00146-18

# Mathy V., Grohs P., Compain F.

In vitro activity of beta-lactams in combination with avibactam against multidrug-resistant Pseudomonas aeruginosa, Stenotrophomonas maltophilia and Achromobacter xylosoxidans isolates from patients with cystic fibrosis Journal of Medical Microbiology 2018; 67: 1217 - 1220

### Mitchell I., Wong SK., Paes B., Ruff M., Bjornson C., Li A., Lanctot KL.

Respiratory syncytial virus prophylaxis in cystic fibrosis: the Canadian registry of palivizumab data (2005-2016) European Journal of Clinical Microbiology & Infectious Diseases 2018; 37: 1345 - 1352

### Park AYJ., Wang J., Jayne J., Fukushima L., Rao AP., D'Argenio DZ., Beringer PM.

Pharmacokinetics of Tedizolid in Plasma and Sputum of Adults with Cystic Fibrosis

Antimicrobial Agents and Chemotherapy 2018; 62: 9:e00550-18

### Pollini S., Mugnaioli C., Dolce D., Campana S., Neri AS., Taccetti G., Rossolini GM.

Chronic infection sustained by a Pseudomonas aeruginosa High-Risk clone producing the VIM-1 metallo-beta-lactamase in a cystic fibrosis patient after lung transplantation

Journal of Cystic Fibrosis 2018; 17: 470 - 474

## Poole K., Gilmour C., Farha MA., Parkins MD., Klinoski R., Brown ED.

Meropenem potentiation of aminoglycoside activity against Pseudomonas aeruginosa: involvement of the MexXY-OprM multidrug efflux system

Journal of Antimicrobial Chemotherapy 2018; 73: 1247 - 1255

# Pryjma M., Burian J., Thompson CJ.

Rifabutin Acts in Synergy and Is Bactericidal with Frontline Mycobacterium abscessus Antibiotics Clarithromycin and Tigecycline, Suggesting a Potent Treatment Combination *Antimicrobial Agents and Chemotherapy 2018; 62:* 

# Qin X., Zhou C., Zerr DM., Adler A., Addetia A., Yuan SH., Greninger AL.

Heterogeneous Antimicrobial Susceptibility Characteristics in Pseudomonas aeruginosa Isolates from Cystic Fibrosis Patients *MSphere 2018; 3: 2:e00615-17* 

# Roch M., Varela MC., Taglialegna A., Rose WE., Rosato AE.

Activity of Telavancin against Staphylococcus aureus Isolates, Including Those with Decreased Susceptibility to Ceftaroline, from Cystic Fibrosis Patients

Antimicrobial Agents and Chemotherapy 2018; 62: 9:e00956-18

# Rossitto M., Fiscarelli EV., Rosati P.

Challenges and Promises for Planning Future Clinical Research Into Bacteriophage Therapy Against Pseudomonas aeruginosa in Cystic Fibrosis. An Argumentative Review

Frontiers in Microbiology 2018; 9: ArtNo: 775

### Sala MA., Jain M.

Tezacaftor for the treatment of cystic fibrosis Expert Review of Respiratory Medicine 2018; 12: 725 - 732

## Schneider-Futschik EK., Paulin OKA., Hoyer D., Roberts KD., Ziogas J., Baker MA., Karas J., Li J., Velkov T.

Sputum Active Polymyxin Lipopeptides: Activity against Cystic Fibrosis Pseudomonas aeruginosa Isolates and Their Interactions with Sputum Biomolecules

ACS Infectious Diseases 2018; 4: 646 - 655

## Shearin S., Bell T.

Treatment of Aspergillus fumigatus infection with posaconazole delayed-release tablets

American Journal of Health-System Pharmacy 2018; 75: 958 - 961

# Spoletini G., Kennedy M., Flint L., Graham T., Etherington C.,

Shaw N., Whitaker P., Denton M., Clifton I., Peckham D. Intravenous fosfomycin for pulmonary exacerbation of cystic fibrosis: Real life experience of a large adult CF centre

Pulmonary Pharmacology & Therapeutics 2018; 50: 82 - 87

# Stokem K., Zuckerman JB., Nicolau DP., Wungwattana M., Sears EH.

Use of ceftolozane-tazobactam in a cystic fibrosis patient with multidrug-resistant pseudomonas infection and renal insufficiency *Respiratory Medicine Case Reports 2018; 23: 8 - 9* 

# Vasireddy L., Bingle LEH., Davies MS.

Antimicrobial activity of essential oils against multidrug-resistant clinical isolates of the Burkholderia cepacia complex *PLoS One 2018; 13: 8:e0201835* 

# Yaacoby-Bianu K., Gur M., Toukan Y., Nir V., Hakim F., Geffen Y., Bentur L.

Compassionate Nitric Oxide Adjuvant Treatment of Persistent Mycobacterium Infection in Cystic Fibrosis Patients Pediatric Infectious Disease Journal 2018; 37: 336 - 338

# Wang SN., Yu SH., Lin YW., Zou PZ., Chai GH., Yu H.,

Wickremasinghe H., Shetty N., Ling JH., Li J., Zhou Q. Co-Delivery of Ciprofloxacin and Colistin in Liposomal Formulations with Enhanced In Vitro Antimicrobial Activities against Multidrug Resistant Pseudomonas aeruginosa

Pharmaceutical Research 2018; 35: 10:UNSP 187

# Zhou JW., Chen TT., Tan XJ., Sheng JY., Jia AQ.

Can the quorum sensing inhibitor resveratrol function as an aminoglycoside antibiotic accelerant against Pseudomonas aeruginosa?

International Journal of Antimicrobial Agents 2018; 52: 35 - 41

# **Cell Biology**

**Bhattacharyya S., Feferman L., Sharma G., Tobacman JK.** Increased GPNMB, phospho-ERK1/2, and MMP-9 in cystic fibrosis in association with reduced arylsulfatase B *Molecular Genetics and Metabolism* 2018; 124: 168 - 175

## Boers SN., de Winter-de Groot KM., Noordhoek J., Gulmans V., van der Ent CK., van Delden JJM., Bredenoord AL.

Mini-guts in a dish: Perspectives of adult Cystic Fibrosis (CF) patients and parents of young CF patients on organoid technology *Journal of Cystic Fibrosis 2018; 17: 407 - 415* 

### Brewington JJ., Filbrandt ET., LaRosa FJ., Moncivaiz JD., Ostmann AJ., Strecker LM., Clancy JP.

Generation of Human Nasal Epithelial Cell Spheroids for Individualized Cystic Fibrosis Transmembrane Conductance Regulator Study

Journal of Visualized Experiments 2018; : 134:e57492

# Gentzsch M., Mall MA.

Ion Channel Modulators in Cystic Fibrosis Chest 2018; 154: 383 - 393

## Matos AM., Gomes-Duarte A., Faria M., Barros P., Jordan P., Amaral MD., Matos P.

Prolonged co-treatment with HGF sustains epithelial integrity and improves pharmacological rescue of Phe508del-CFTR *Scientific Reports 2018; 8: ArtNo: 13026* 

## Peters-Hall JR., Coquelin ML., Torres MJ., LaRanger R., Alabi BR., Sho S., Calva-Moreno JF., Thomas PJ., Shay JW.

Long-term culture and cloning of primary human bronchial basal cells that maintain multipotent differentiation capacity and CFTR channel function

American Journal of Physiology-Lung Cellular and Molecular Physiology 2018; 315: L313 - L327

## Plasschaert LW., Zilionis R., Choo-Wing R., Savova V., Knehr J., Roma G., Klein AM., Jaffe AB.

A single-cell atlas of the airway epithelium reveals the CFTR-rich pulmonary ionocyte

Nature 2018; 560: 377

# Rottgen TS., Nickerson AJ., Rajendran VM.

Calcium-Activated Cl- Channel: Insights on the Molecular Identity in Epithelial Tissues

# International Journal of Molecular Sciences 2018; 19: 5:1432 Rout-Pitt N., Farrow N., Parsons D., Donnelley M.

Epithelial mesenchymal transition (EMT): a universal process in lung diseases with implications for cystic fibrosis pathophysiology *Respiratory Research 2018; 19: ArtNo: 136* 

### Sondo E., Falchi F., Caci E., Ferrera L., Giacomini E., Pesce E., Tomati V., Bertozzi SM., Goldoni L., Armirotti A., Ravazzolo R., Cavalli A., Pedemonte N.

Pharmacological Inhibition of the Ubiquitin Ligase RNF5 Rescues F508del-CFTR in Cystic Fibrosis Airway Epithelia *Cell Chemical Biology 2018; 25: 891* 

## Virginie RC., Matthieu B., Joanna L., Cerina C., Vincent AJ., Myriam M., Thao N., Sophie GP., Alain S., Aleksander E., Isabelle SG., Chiara GI.

Comparative proteomics of respiratory exosomes in cystic fibrosis, primary ciliary dyskinesia and asthma

# Journal of Proteomics 2018; 185: 1 - 7

## Zomer-van Ommen DD., de Poel E., Kruisselbrink E., Oppelaar H., Vonk AM., Janssens HM., van der Ent CK., Hagemeijer MC., Beekman JM.

Comparison of ex vivo and in vitro intestinal cystic fibrosis models to measure CFTR-dependent ion channel activity *Journal of Cystic Fibrosis 2018; 17: 316 - 324* 

# **CFTR**

### Ahmadi S., Xia S., Wu YS., Di Paola M., Kissoon R., Luk C., Lin F., Du K., Rommens J., Bear CE.

SLC6A14, an amino acid transporter, modifies the primary CF defect in fluid secretion

ELife 2018; 7: ArtNo: e37963

# Aleksandrov LA., Fay JF., Riordan JR.

R-Domain Phosphorylation by Protein Kinase A Stimulates Dissociation of Unhydrolyzed ATP from the First Nucleotide-Binding Site of the Cystic Fibrosis Transmembrane Conductance Regulator Biochemistry 2018; 57: 5073 - 5075

### Brewington JJ., Filbrandt ET., LaRosa FJ., Moncivaiz JD., Ostmann AJ., Strecker LM., Clancy JP.

Brushed nasal epithelial cells are a surrogate for bronchial epithelial CFTR studies

JCI Insight 2018; 3: 13:e99385

# Bruch BA., Singh SB., Ramsey LJ., Starner TD.

Impact of a cystic fibrosis transmembrane conductance regulator (CFTR) modulator on high-dose ibuprofen therapy in pediatric cystic fibrosis patients

Pediatric Pulmonology 2018; 53: 1035 - 1039

# Burgener EB., Moss RB.

Cystic fibrosis transmembrane conductance regulator modulators: precision medicine in cystic fibrosis Current Opinion in Pediatrics 2018; 30: 372 - 377

# Callebaut I., Chong PA., Forman-Kay JD.

CFTR structure

Journal of Cystic Fibrosis 2018; 17:

# Chang SW., Wellmerling J., Zhang X., Rayner RE., Osman W., Mertz S., Amer AO., Peeples ME., Boyaka PN., Cormet-Boyaka

The psychoactive substance of cannabis Delta 9-tetrahydrocannabinol (THC) negatively regulates CFTR in airway cells Biochimica et Biophysica Acta-General Subjects 2018; 1862: 1988 -1994

# Corradi V., Gu RX., Vergani P., Tieleman DP.

Structure of Transmembrane Helix 8 and Possible Membrane Defects in CFTR

Biophysical Journal 2018; 114: 1751 - 1754

## De Rocco D., Pompili B., Castellani S., Morini E., Cavinato L., Cimino G., Mariggio MA., Guarnieri S., Conese M., Del Porto P., Ascenzioni F.

Assembly and Functional Analysis of an S/MAR Based Episome with the Cystic Fibrosis Transmembrane Conductance Regulator Gene International Journal of Molecular Sciences 2018; 19: 4:1220

# De Santi C., Gadi S., Swiatecka-Urban A., Greene CM.

Identification of a novel functional miR-143-5p recognition element in the Cystic Fibrosis Transmembrane Conductance Regulator 3'UTR Aims Genetics 2018; 5: 53 - 62

# Farinha CM., Miller E., McCarty N.

Protein and lipid interactions - Modulating CFTR trafficking and rescue

Journal of Cystic Fibrosis 2018; 17:

## Fernandez EF., De Santi C., De Rose V., Greene CM. CFTR dysfunction in cystic fibrosis and chronic obstructive pulmonary disease

Expert Review of Respiratory Medicine 2018; 12: 483 - 492

### Ferreira VFC., Oliveira BL., Santos JD., Correia JDG., Farinha CM., Mendes F.

Targeting of the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) Protein with a Technetium-99m Imaging Probe Chemmedchem 2018; 13: 1469 - 1478

## Han ST., Rab A., Pellicore MJ., Davis EF., McCague AF., Evans TA., Joynt AT., Lu ZZ., Cai ZW., Raraigh KS., Hong JS., Sheppard DN., Sorscher EJ., Cutting GR.

Residual function of cystic fibrosis mutants predicts response to small molecule CFTR modulators

JCI Insight 2018; 3: 14:e121159

## Hutt DM., Loguercio S., Roth DM., Su AI., Balch WE. Correcting the F508del-CFTR variant by modulating eukaryotic translation initiation factor 3-mediated translation initiation Journal of Biological Chemistry 2018; 293: 13477 - 13495

# Hutt DM., Mishra SK., Roth DM., Larsen MB., Angles F., Frizzell RA., Balch WE.

Silencing of the Hsp70-specific nucleotide-exchange factor BAG3 corrects the F508del-CFTR variant by restoring autophagy Journal of Biological Chemistry 2018; 293: 13682 - 13695

Kramer EL., Hardie WD., Madala SK., Davidson C., Clancy JP. Subacute TGF beta expression drives inflammation, goblet cell hyperplasia, and pulmonary function abnormalities in mice with effects dependent on CFTR function

American Journal of Physiology-lung Cellular and Molecular Physiology 2018; 315: L456 - L465

### Laselva O., Marzaro G., Vaccarin C., Lampronti I., Tamanini A., Lippi G., Gambari R., Cabrini G., Bear CE., Chilin A., Dechecchi MC.

Molecular Mechanism of Action of Trimethylangelicin Derivatives as CFTR Modulators

Frontiers in Pharmacology 2018; 9: ArtNo: 719

## Laselva O., Molinski S., Casavola V., Bear CE.

Correctors of the Major Cystic Fibrosis Mutant Interact through Membrane-Spanning Domains Molecular Pharmacology 2018; 93: 612 - 618

## Linsdell P.

Cystic fibrosis transmembrane conductance regulator (CFTR): Making an ion channel out of an active transporter structure Channels 2018; 12: 284 - 290

# Malhotra K., Noor MO., Krull UJ.

Detection of cystic fibrosis transmembrane conductance regulator Delta F508 gene mutation using a paper-based nucleic acid hybridization assay and a smartphone camera Analyst 2018; 143: 3049 - 3058

# Martin SL., Saint-Criq V., Hwang TC., Csanady L.

Ion channels as targets to treat cystic fibrosis lung disease Journal of Cystic Fibrosis 2018; 17:

### Matos AM., Gomes-Duarte A., Faria M., Barros P., Jordan P., Amaral MD., Matos P.

Prolonged co-treatment with HGF sustains epithelial integrity and improves pharmacological rescue of Phe508del-CFTR Scientific Reports 2018; 8: ArtNo: 13026

# Matthes E., Hanrahan JW., Cantin AM.

F508del-CFTR is not corrected by thymosin alpha 1 Nature Medicine 2018; 24: 890 - 891

Molinski SV., Shahani VM., Subramanian AS., MacKinnon SS., Woollard G., Laforet M., Laselva O., Morayniss LD., Bear CE., Windemuth A.

Comprehensive mapping of cystic fibrosis mutations to CFTR protein identifies mutation clusters and molecular docking predicts corrector binding site

Proteins-Structure Function and Bioinformatics 2018; 86: 833 - 843

Mutolo MJ., Leir SH., Fossum SL., Browne JA., Harris A. A transcription factor network represses CFTR gene expression in airway epithelial cells Biochemical Journal 2018; 475: 1323 - 1334

Negoda A., Cowley EA., El Hiani Y., Linsdell P. Conformational change of the extracellular parts of the CFTR protein during channel gating

Cellular and Molecular Life Sciences 2018; 75: 3027 - 3038

### Noh SH., Gee HY., Kim Y., Piao H., Kim J., Kang CM., Lee G., Mook-Jung I., Lee Y., Cho JW., Lee MG.

Specific autophagy and ESCRT components participate in the unconventional secretion of CFTR Autophagy 2018; 14: 1761 - 1778

## Numata T., Sato-Numata K., Okada Y., Inoue R. Cellular mechanism for herbal medicine Junchoto to facilitate

intestinal Cl-/water secretion that involves cAMP-dependent activation of CFTR Journal of Natural Medicines 2018; 72: 694 - 705

Phuan PW., Veit G., Tan JA., Roldan A., Finkbeiner WE., Haggie PM., Lukacs GL., Verkman AS.

F508-CFTR Modulator Screen Based on Cell Surface Targeting of a Chimeric Nucleotide Binding Domain 1 Reporter

SLAS Discovery 2018; 23: 823 - 831 Ponzano S., Nigrelli G., Fregonese L., Eichler I., Bertozzi F.,

Bandiera T., Galietta LJV., Papaluca M. A European regulatory perspective on cystic fibrosis: current treatments, trends in drug development and translational challenges for CFTR modulators

European Respiratory Review 2018; 27: 148: UNSP 17012

# Raraigh KS., Han ST., Davis E., Evans TA., Pellicore MJ., McCague AF., Joynt AT., Lu ZZ., Atalar M., Sharma N., Sheridan MB., Sosnay PR., Cutting GR.

Functional Assays Are Essential for Interpretation of Missense Variants Associated with Variable Expressivity American Journal of Human Genetics 2018; 102: 1062 - 1077

### Romani L., Stincardini C., Giovagnoli S., Paci M., Villella VR., Sforna L., Renga G., Bellet MM., Costantini C., Puccetti P., Kroemer G.,Maiuri L., Pessia M., Goldstein A., Garaci E. Reply to 'F508del-CFTR is not corrected by thymosin alpha 1' *Nature Medicine 2018; 24: 891 - 893*

## Shi J., Li H., Yuan C., Luo MH., Wei J., Liu XM.

Cigarette Smoke-Induced Acquired Dysfunction of Cystic Fibrosis Transmembrane Conductance Regulator in the Pathogenesis of Chronic Obstructive Pulmonary Disease Oxidative Medicine and Cellular Longevity 2018; : ArtNo: 6567578

Smirnikhina SA., Anuchina AA., Kochergin-Nikitsky KS.,

Adilgereeva EP., Yakushina VD., Lavrov AV. Experimental approaches to the target editing of the CFTR gene using

CRISPR-CAS9 Bulletin of Russian State Medical University 2018; : 14 - 20

### **Thomas A., Ramananda Y., Mun K., Naren AP., Arora K.** AC6 is the major adenylate cyclase forming a diarrheagenic protein complex with cystic fibrosis transmembrane conductance regulator in cholera

Journal of Biological Chemistry 2018; 293: 12949 - 12959

## Venglovecz V., Pallagi P., Kemeny LV., Balazs A., Balla Z., Becskehazi E., Gal E., Toth E., Zvara A., Puskas LG., Borka K., Sendler M., Lerch MM., Mayerle J., Kuhn JP., Rakonczay Z., Hegyi P.

The Importance of Aquaporin 1 in Pancreatitis and Its Relation to the CFTR Cl- Channel

Frontiers in Physiology 2018; 9: ArtNo: 854

### Wang GY.

Removal of the Fe(III) site promotes activation of the human cystic fibrosis transmembrane conductance regulator by high-affinity Zn(II) binding

Metallomics 2018; 10: 240 - 247

# Wang YT., Liu JH., Yang XD., Yan H., Zhang YG.

Chinese data of the CFTR mutation: a report from West China Hospital and literature review

International Journal of Clinical and Experimental Medicine 2018; 11: 6293 - 6301

Wei X., Lu ZS., Yang T., Gao P., Chen SJ., Liu DY., Zhu ZM. Stimulation of Intestinal Cl- Secretion Through CFTR by Caffeine Intake in Salt-Sensitive Hypertensive Rats *Kidney & Blood Pressure Research 2018; 43: 439 - 448* 

# Wen GR., Deng SL., Song WF., Jin H., Xu JY., Liu X., Xie RM., Song PH., Tuo BG.

Helicobacter pylori infection downregulates duodenal CFTR and SLC26A6 expressions through TGF beta signaling pathway *BMC Microbiology 2018; 18: ArtNo: 87* 

# Yang ZR., Hildebrandt E., Jiang F., Aleksandrov AA., Khazanov N., Zhou QX., An JL., Mezzell AT., Xavier BM., Ding H., Riordan JR., Senderowitz H., Kappes JC., Brouillette CG., Urbatsch IL.

Structural stability of purified human CFTR is systematically improved by mutations in nucleotide binding domain 1 *Biochimica et Biophysica Acta-Biomembranes 2018; 1860: 1193 - 1204* 

# Zhang YP., Zhang Y., Xiao ZB., Zhang YB., Zhang J., Li ZQ., Zhu YB.

CFTR prevents neuronal apoptosis following cerebral ischemia reperfusion via regulating mitochondrial oxidative stress Journal of Molecular Medicine 2018; 96: 611 - 620

# Clinical

# Alaa AM., van der Schaar M.

Prognostication and Risk Factors for Cystic Fibrosis via Automated Machine Learning

Scientific Reports 2018; 8: ArtNo: 11242

### Altwegg R., Chiron R., Caimmi D., Marquez F., Jaouen F., Senesse P., Flori N. Management of a patient with cystic fibrosis

Nutrition Clinique et Metabolisme 2018; 32: 90 - 94

Atanasova KR., Reznikov LR. Neuropeptides in asthma, chronic obstructive pulmonary disease and cystic fibrosis

Respiratory Research 2018; 19: ArtNo: 149

## Dellon EP., Goggin J., Chen E., Sabadosa K., Hempstead SE., Faro A., Homa K. Defining palliative care in cystic fibrosis: A Delphi study

Journal of Cystic Fibrosis 2018; 17: 416 - 421

Goldstein DY., Prystowsky M. Educational Case: Autosomal Recessive Inheritance: Cystic Fibrosis Academic Pathology 2017; 4: ArtNo: UNSP 237

Hadjiliadis D., Khoruts A., Zauber AG., Hempstead SE., Maisonneuve P., Lowenfels AB. Cancer Risk in Patients With Cystic Fibrosis Reply *Gastroenterology 2018; 154: 2283 - 2284* 

# Hassan M., Bonafede MM., Limone BL., Hodgkins P., Sawicki GS.

The burden of cystic fibrosis in the Medicaid population Clinicoeconomics and Outcomes Research 2018; 10: 423 - 431

Kaiser H., Brustad N., Pressler T., Bygum A. Aquagenic wrinkling of the palms in patients with cystic fibrosis *British Journal of Dermatology 2018; 179: 494 - 495* 

Kapucu I., Kocak M., Kontzialis M. Intracerebral abscess: an uncommon complication of cystic fibrosis Journal of Emergency Medicine 2018; 55: E47 - E49

### Kianifar HR., Ezzati A., Jafari SA., Kiani MA., Ahanchian H., Karami H., Khodashenas E., Jahanbin A.

Identification of Dermatoglyphic Patterns in Parents of Children with Cystic Fibrosis

International Journal of Pediatrics-Mashhad 2018; 6: 7277 - 7284

Kumar P., Gupta N., Khera D., Singh K. Pseudo-Bartter Syndrome as the Initial Presentation of Cystic Fibrosis in Infants: A Series of Three cases and Review of Literature *Journal of Clinical and Diagnostic Research 2018; 12: SR1 - SR3* 

Lechtzin N., Mayer-Hamblett N., Khan U., Goss CH.

eHealth in Cystic Fibrosis: Promising, but Proof of Concept Is Still Needed Reply

American Journal of Respiratory and Critical Care Medicine 2018; 198: 285 - 286

# Martelli V., Stanbrook M., Anand A.

eHealth in Cystic Fibrosis: Promising, but Proof of Concept Is Still Needed American Journal of Respiratory and Critical Care Medicine 2018;

198: 284 - 285

### McCarthy C., O'Carroll O., O'Brien ME., McEnery T., Franciosi A., Gunaratnam C., McElvaney NG.

Risk factors for totally implantable venous access device-associated complications in cystic fibrosis

Irish Journal of Medical Science 2018; 187: 429 - 434 McNally P., Greene CM.

# Cystic fibrosis: a model for precision medicine

Expert Review of Precision Medicine and Drug Development 2018; 3: 107 - 117

Panjwani N., Xiao BW., Xu LZ., Gong JF., Keenan K., Lin F., He GM., Baskurt Z., Kim S., Zhang L., Esmaeili M., Blackman S., Scherer SW., Corvol H., Drumm M., Knowles M., Cutting G., Rommens JM., Sun L., Strug LJ.

Improving imputation in disease-relevant regions: lessons from cystic fibrosis

NPI Genomic Medicine 2018; 3: ArtNo: 8

# Poddighe D., Castelli L., Comi EV., Brambilla I., Bruni P.

Metabolic alkalosis with multiple salt unbalance: an atypical onset of cystic fibrosis in a child Journal of Pediatric and Neonatal Individualized Medicine 2018; 7:

1:e070105

**Ponzetto A., Holton J., Lucia U.** Cancer Risk in Patients With Cystic Fibrosis *Gastroenterology 2018; 154: 2282 - 2283* 

## Saavedra MT., Quon BS., Faino A., Caceres SM., Poch KR., Sanders LA., Malcolm KC., Nichols DP., Sagel SD., Taylor-Cousar JL., Leach SM., Strand M., Nick JA.

Whole Blood Gene Expression Profiling Predicts Severe Morbidity and Mortality in Cystic Fibrosis: A 5-Year Follow-Up Study Annals of the American Thoracic Society 2018; 15:

# Saiman L., Zhou JYJ., Jiang XT., Kosorok MR., Muhlebach MS.

Surveying Cystic Fibrosis Care Centers to Assess Adoption of Infection Prevention and Control Recommendations Infection Control and Hospital Epidemiology 2018; 39: 647 - 651

# Samples DC., Thoms DJ., Tarasiewicz I.

Early analysis of operative management of Chiari I malformation in pediatric cystic fibrosis patients *Childs Nervous System 2018; 34: 1549 - 1555* 

# Saravia PA., Riley C.

Case Study: Cystic Fibrosis in the Newborn Neonatal Network 2018; 37: 164 - 168

# van Rensburg J., Alessandrini M., Stewart C., Pepper MS.

Cystic fibrosis in South Africa: A changing diagnostic paradigm SAMJ South African Medical Journal 2018; 108: 624 - 628

# Walicka-Serzysko K., Peckova M., Noordhoek JJ., Sands D., Drevinek P.

Insights into the cystic fibrosis care in Eastern Europe: Results of survey

Journal of Cystic Fibrosis 2018; 17: 475 - 477

# West NE., Flume PA.

Unmet needs in cystic fibrosis: the next steps in improving outcomes Expert Review of Respiratory Medicine 2018; 12: 585 - 593

# Wettstein M.

Diego: a life with cystic fibrosis Manuelle Therapie 2018; 22: 67 - 73

### Whitehead L., Arabiat RND., Foster M.

Singing as an adjunct therapy for children and adults with cystic fibrosis: A Cochrane review summary

International Journal of Nursing Studies 2018; 82: 163 - 164

Wiecek S., Chudek J., Wos H., Bozentowicz-Wikarek M., Kordys-Darmolinska B., Grzybowska-Chlebowczyk U.

Serum Level of D-Lactate in Patients with Cystic Fibrosis: Preliminary Data Disease Markers 2018; : ArtNo: 5940893

# Wood J., Jenkins S., Putrino D., Mulrennan S., Morey S., Cecins N., Hill K.

A smartphone application for reporting symptoms in adults with cystic fibrosis: protocol of a randomised controlled trial *BMJ Open 2018; 8: 4:e021136* 

## Yucel H., Akcaboy M., Oguz MM., Demir E., Senel S.

Vomiting may be the Only Sign of Cystic Fibrosis: A Case Report Gazi Medical Journal 2018; 29: 236 - 237

# Databases & Registries

# Ahern S., Sims G., Earnest A., Bell SC.

Optimism, opportunities, outcomes: the Australian Cystic Fibrosis Data Registry

Internal Medicine Journal 2018; 48: 721 - 723

### Bessonova L., Volkova N., Higgins M., Bengtsson L., Tian S., Simard C., Konstan MW., Sawicki GS., Sewall A., Nyangoma S., Elbert A., Marshall BC., Bilton D.

Data from the US and UK cystic fibrosis registries support disease modification by CFTR modulation with ivacaftor *Thorax 2018; 73: 731 - 740* 

## Dasenbrook EC., Sawicki GS.

Cystic fibrosis patient registries: A valuable source for clinical research

Journal of Cystic Fibrosis 2018; 17: 433 - 440

## Hoo ZH., Curley R., Campbell MJ., Walters SJ., Wildman MJ.

The importance of data issues when comparing cystic fibrosis registry outcomes between countries: Are annual review FEV1 in the UK only collected when subjects are well?

Journal of Evaluation in Clinical Practice 2018; 24: 745 - 751

## Hurley PD., Oliver S., Mehta A.

Creating longitudinal datasets and cleaning existing data identifiers in a cystic fibrosis registry using a novel Bayesian probabilistic approach from astronomy *PLoS One 2018; 13: 7:e0199815* 

# Diabetes

### Armaghanian N., Markovic TP., Brand-Miller JC., Bye PTP., Moriarty CP., Steinbeck KS.

Hypoglycaemia in cystic fibrosis: An analysis of a single centre adult cystic fibrosis clinic

Journal of Cystic Fibrosis 2018; 17: 542 - 547

## Bridges N., Rowe R., Holt RIG. Unique challenges of cystic fibrosis-related diabetes Diabetic Medicine 2018; 35: 1181 - 1188

### Chan CL., Hope E., Thurston J., Vigers T., Pyle L., Zeitler PS., Nadeau KJ.

Hemoglobin A(1c) Accurately Predicts Continuous Glucose Monitoring-Derived Average Glucose in Youth and Young Adults With Cystic Fibrosis

Diabetes Care 2018; 41: 1406 - 1413

Machura E., Szczepanska M., Swietochowska E., Halkiewicz F., Barc-Czarnecka M., Ziora K., Ziora D. Evaluation of adipokines in children with cystic fibrosis Endokrynologia Polska 2018; 69: 128 - 134

### Mannik LA., Chang KA., Annoh PQK., Sykes J., Gilmour J., Robert R., Stephenson AL.

Prevalence of hypoglycemia during oral glucose tolerance testing in adults with cystic fibrosis and risk of developing cystic fibrosis-related diabetes

Journal of Cystic Fibrosis 2018; 17: 536 - 541

## Pu MZMH., Goncalves AC., Minnicucci WJ., Morcillo AM., Ribeiro JD., Ribeiro AF.

Continuous glucose monitoring to evaluate glycaemic abnormalities in cystic fibrosis

Archives of Disease in Childhood 2018; 103: 592 - 596

Reynaud Q., Rabilloud M., Roche S., Poupon-Bourdy S., Iwaz J., Nove-Josserand R., Blond E., Laville M., Llerena C., Quetant S., Reix P., Touzet S., Durieu I.

Glucose trajectories in cystic fibrosis and their association with pulmonary function Journal of Cystic Fibrosis 2018; 17: 400 - 406

# Diagnosis

Bergougnoux A., Taulan-Cadars M., Claustres M., Raynal C. Current and future molecular approaches in the diagnosis of cystic fibrosis

Expert Review of Respiratory Medicine 2018; 12: 415 - 426

Cirilli N., Raia V., Rocco I., De Gregorio F., Tosco A., Salvadori L., Sepe AO., Buzzetti R., Minicuci N., Castaldo G. Intra-individual biological variation in sweat chloride concentrations in CF, CFTR dysfunction, and healthy pediatric subjects *Pediatric Pulmonology 2018; 53: 728 - 734* 

### Cirilli N., Southern KW., Buzzetti R., Barben J., Nahrlich L., Munck A., Wilschanski M., De Boeck K., Derichs N. Real life practice of sweat testing in Europe Journal of Cystic Fibrosis 2018; 17: 325 - 332

Vallejos S., Hernando E., Trigo M., Garcia FC., Garcia-Valverde M., Iturbe D., Cabero MJ., Quesada R., Garcia JM. Polymeric chemosensor for the detection and quantification of chloride in human sweat. Application to the diagnosis of cystic fibrosis

Journal of Materials Chemistry b 2018; 6: 3735 - 3741

# Epidemiology

### Boussetta K., Khalsi F., Bahri Y., Belhadj I., Tinsa F., Ben Messaoud T., Hamouda S.

Cystic fibrosis in Tunisian children: a review of 32 children African Health Sciences 2018; 18: 664 - 670

Grangeia A., Alves S., Goncalves L., Gregorio I., Santos A.C., Barros H., Barros A., Carvalho F., Moura C. Spectrum of CETP, gama sequence variants in a porthern Portugal

Spectrum of CFTR gene sequence variants in a northern Portugal population

Pulmonology 2018; 24: 3 - 9

# Jackson AD., Goss CH.

Epidemiology of CF: How registries can be used to advance our understanding of the CF population *Journal of Cystic Fibrosis 2018; 17: 297 - 305* 

Jarjour RA., Al-Berrawi S., Ammar S., Majdalawi R. Spectrum of cystic fibrosis mutations in Syrian patients *Minerva Pediatrica 2018; 70: 159 - 164* 

# Exercise

# Elce A., Nigro E., Gelzo M., Iacotucci P., Carnovale V., Liguori R., Izzo V., Corso G., Castaldo G., Daniele A., Zarrilli F.

Supervised physical exercise improves clinical, anthropometric and biochemical parameters in adult cystic fibrosis patients: A 2-year evaluation

Clinical Respiratory Journal 2018; 12: 2228 - 2234

# Gruet M., Mely L., Vallier JM.

Overall and differentiated sensory responses to cardiopulmonary exercise test in patients with cystic fibrosis: kinetics and ability to predict peak oxygen uptake

European Journal of Applied Physiology 2018; 118: 2007 - 2019

# Paranjape SM., Carson KA., Demissie SM., Loosen H., Vela K., Mogayzel PJ.

Use of the Modified Shuttle Walk Test During Inpatient Pediatric Cystic Fibrosis Pulmonary Exacerbation Treatment Journal of Acute Care Physical Therapy 2018; 9: 136 - 142

# Pfirrmann D., Haller N., Huber Y., Jung P., Lieb K., Gockel I., Poplawska K., Schattenberg JM., Simon P.

Applicability of a Web-Based, Individualized Exercise Intervention in Patients With Liver Disease, Cystic Fibrosis, Esophageal Cancer, and Psychiatric Disorders: Process Evaluation of 4 Ongoing Clinical Trials

JMIR Research Protocols 2018; 7: 5:e106

# **Sovtic A., Minic P., Markovic-Sovtic G., Trajkovic GZ.** Respiratory Muscle Strength and Exercise Performance in Cystic

Fibrosis-A Cross Sectional Study

Frontiers in Pediatrics 2018; 6: ArtNo: 244

# Stevens D.

Static hyperinflation is associated with ventilatory limitation and exercise tolerance in adult cystic fibrosis *Clinical Respiratory Journal 2018; 12: 1949 - 1957* 

# Van Iterson EH., Baker SE., Wheatley CM., Morgan WJ., Olson TP., Snyder EM.

Exercise Stroke Volume in Adult Cystic Fibrosis: A Comparison of Acetylene Pulmonary Uptake and Oxygen Pulse *Clinical Medicine Insights-Circulatory Respiratory and Pulmonary* 

2018; 12: ArtNo: UNSP 117 Ward N., Stiller K., Rowe H., Morrow S., Morton J., Greville H.,

# **Holland AE.** Airway clearance by exercising in mild cystic fibrosis (ACE-CF): A feasibility study

Respiratory Medicine 2018; 142: 23 – 28

# Welford P., Alfredson H.

Achilles insertion bone pathology not related to pain in a triathlete with cystic fibrosis

Journal of Surgical Case Reports 2018; : 8:rjy182

# Gastroenterology

Bolia R., Ooi CY., Lewindon P., Bishop J., Ranganathan S., Harrison J., Ford K., van der Haak N., Oliver MR.

Practical approach to the gastrointestinal manifestations of cystic fibrosis

Journal of Paediatrics and Child Health 2018; 54: 609 - 619

## Bruzzese E., Raia V., Ruberto E., Scotto R., Giannattasio A., Bruzzese D., Cavicchi MC., Francalanci M., Colombo C., Faelli N., Dacco V., Magazzu G., Costa S., Lucidi V., Majo F., Guarino A.

Lack of efficacy of Lactobacillus GG in reducing pulmonary exacerbations and hospital admissions in children with cystic fibrosis: A randomised placebo controlled trial *Journal of Cystic Fibrosis 2018; 17: 375 - 382* 

ournal of Cystic Fibrosis 2018; 17: 373 -

# **Green J., Gilchrist FJ., Carroll W.** Interventions for preventing distal intestinal obstruction syndrome (DIOS) in cystic fibrosis

Cochrane Database of Systematic Reviews 2018; : 6:CD012619

# Kent DS., Remer T., Blumenthal C., Hunt S., Simonds S., Egert S., Gaskin KJ.

C-13-Mixed Triglyceride Breath Test and Fecal Elastase as an Indirect Pancreatic Function Test in Cystic Fibrosis Infants Journal of Pediatric Gastroenterology and Nutrition 2018; 66: 811 -815

## Maisonneuve P., Lowenfels AB., Hadjiliadis D., Khoruts A., Marshall BC.

Gastrointestinal cancers in patients with cystic fibrosis Lancet Oncology 2018; 19: E368

## Mentessidou A., Loukou I., Kampouroglou G., Livani A., Georgopoulos I., Mirilas P.

Long-term intestinal obstruction sequelae and growth in children with cystic fibrosis operated for meconium ileus: expectancies and surprises

Journal of Pediatric Surgery 2018; 53: 1504 - 1508

# Ratchford TL., Teckman JH., Patel DR.

Gastrointestinal pathophysiology and nutrition in cystic fibrosis Expert Review of Gastroenterology & Hepatology 2018; 12: 853 -862

# Yamada A., Komaki Y., Komaki F., Micic D., Zullow S., Sakuraba A.

Risk of gastrointestinal cancers in patients with cystic fibrosis: a systematic review and meta-analysis Lancet Oncology 2018; 19: 758 - 767

### Yamada A., Komaki Y., Komaki F., Micic D., Zullow S., Sakuraba A.

Gastrointestinal cancers in patients with cystic fibrosis reply Lancet Oncology 2018; 19: E369 Yao L., Niu WQ. Gastrointestinal cancer risk in cystic fibrosis: more exploration is needed Lancet Oncology 2018; 19: E332

# **Gene Therapy**

**Bardin P., Sonneville F., Tabary O.** miRNA as a bullet against cystic fibrosis *Medecine Sciences 2018; 34: 554 - 562* 

Duncan GA., Kim N., Colon-Cortes Y., Rodriguez J., Mazur M., Birket SE., Rowe SM., West NE., Livraghi-Butrico A., Boucher RC., Hanes J., Aslanidi G., Suk JS.

An Adeno-Associated Viral Vector Capable of Penetrating the Mucus Barrier to Inhaled Gene Therapy

Molecular Therapy-methods & Clinical Development 2018; 9: 296 - 304

Osman G., Rodriguez J., Chan SY., Chisholm J., Duncan G., Kim N., Tatler AL., Shakesheff KM., Hanes J., Suk JS., Dixon JE. PEGylated enhanced cell penetrating peptide nanoparticles for lung gene therapy *Journal of Controlled Release 2018; 285: 35 - 45* 

Journal of Controlled Release 2018, 285. 55

# **General Review**

# Savant AP., McColley SA.

Cystic fibrosis year in review 2017 Pediatric Pulmonology 2018; 53: 1307 - 1317

# Genetics

### Abuzeid WM., Song CE., Fastenberg JH., Fang CH., Ayoub N., Jerschow E., Mohabir PK., Hwang PH.

Correlations Between Cystic Fibrosis Genotype and Sinus Disease Severity in Chronic Rhinosinusitis Laryngoscope 2018; 128: 1752 - 1758

# Bai S., Du Q., Liu XL., Tong YX., Wu B.

The detection and significance of cystic fibrosis transmembrane conductance regulator gene promoter mutations in Chinese patients with congenital bilateral absence of the vas deferens *Gene 2018; 672: 64 - 71* 

## Bergougnoux A., D'Argenio V., Sollfrank S., Verneau F., Telese A., Postiglione I., Lackner KJ., Claustres M., Castaldo G., Rossman H., Salvatore F., Raynal C.

Multicenter validation study for the certification of a CFTR gene scanning method using next generation sequencing technology *Clinical Chemistry and Laboratory Medicine 2018; 56: 1046 - 1053* 

Chang YH., Stone TA., Chin S., Glibowicka M., Bear CE., Deber CM.

Structural effects of extracellular loop mutations in CFTR helical hairpins

Biochimica et Biophysica Acta-Biomembranes 2018; 1860: 1092 - 1098

# Corvol H., Mesinele J., Douksieh IH., Strug LJ., Boelle PY., Guillot L.

SLC26A9 Gene Is Associated With Lung Function Response to Ivacaftor in Patients With Cystic Fibrosis

Frontiers in Pharmacology 2018; 9: ArtNo: 828

# Fanous HK., Delgado-Villata S., Kovacs R., Shalaby-Rana E., Sami-Zakahri I.

Phenotypic Characterization of the c.1679+1643G > T (1811+1643G > T) Mutation in Hispanic Cystic Fibrosis Patients *Children-Basel 2018; 5: 7:91* 

# Fernandez-Lorenzo AE., Moreno-Alvarez A., Colon-Mejeras C., Barros-Angueira F., Solar-Boga A., Sirvent-Gomez J., Couce ML., Leis R.

V232D mutation in patients with cystic fibrosis Not so rare, not so mild

Medicine 2018; 97: 28:e11397

# Gillen AE., Yang R., Cotton CU., Perez A., Randell SH., Leir SH., Harris A.

Molecular characterization of gene regulatory networks in primary human tracheal and bronchial epithelial cells *Journal of Cystic Fibrosis 2018; 17: 444 - 453* 

**Glasgow AMA., De Santi C., Greene CM.** Non-coding RNA in cystic fibrosis *Biochemical Society Transactions 2018; 46: 619 - 630* 

## Mota LR., de Castro LL., Ferreira TD., de Lima RLLF., Toralles MBP., Souza EL.

Cystic fibrosis: Identification and frequency of mutations in a mixed population from a low-income region in Northeastern Brazil *Pediatric Pulmonology 2018; 53: 1006 - 1008* 

# O'Neal WK., Knowles MR.

Cystic Fibrosis Disease Modifiers: Complex Genetics Defines the Phenotypic Diversity in a Monogenic Disease Annual Review of Genomics and Human Genetics, Vol 19 2018; 19: 201 - 222

**Pereira SVN., Ribeiro JD., Bertuzzo CS., Marson FAL.** Interaction among variants in the SLC gene family (SLC6A14, SLC26A9, SLC11A1, and SLC9A3) and CFTR mutations with clinical markers of cystic fibrosis *Pediatric Pulmonology 2018; 53: 888 - 900* 

# Sofia VM., Surace C., Terlizzi V., Da Sacco L., Alghisi F., Angiolillo A., Braggion C., Cirilli N., Colombo C., Di Lullo A., Padoan R., Quattrucci S., Raia V., Tuccio G., Zarrilli F., Tomaiuolo AC., Novelli A., Lucidi V., et al

Trans-heterozygosity for mutations enhances the risk of recurrent/chronic pancreatitis in patients with Cystic Fibrosis *Molecular Medicine 2018; 24: ArtNo: UNSP 38* 

# **Immunology & Inflammation**

# Bardin P., Marchal-Duval E., Sonneville F., Blouquit-Laye S.,

**Rousselet N., Le Rouzic P., Corvol H., Tabary O.** Small RNA and transcriptome sequencing reveal the role of miR-199a-3p in inflammatory processes in cystic fibrosis airways *Journal of Pathology 2018; 245: 410 - 420* 

# Bragonzi A., Horati H., Kerrigan L., Lore NI., Scholte BJ., Weldon S.

Inflammation and host-pathogen interaction: Cause and consequence in cystic fibrosis lung disease

Journal of Cystic Fibrosis 2018; 17:

**Cockx M., Gouwy M., Van Damme J., Struyf S.** Chemoattractants and cytokines in primary ciliary dyskinesia and cystic fibrosis: key players in chronic respiratory diseases *Cellular & Molecular Immunology 2018; 15: 312 - 323* 

## de Freitas MB., Moreira EAM., Oliveira DD., Tomio C., da Rosa JS., Moreno YMF., Barbosa E., Neto NL., Buccigrossi V., Guarino A., Frode TS.

Effect of synbiotic supplementation in children and adolescents with cystic fibrosis: a randomized controlled clinical trial *European Journal of Clinical Nutrition 2018; 72: 736 - 743* 

# Hovold G., Palmcrantz V., Kahn F., Egesten A., Pahlman LI.

Heparin-binding protein in sputum as a marker of pulmonary inflammation, lung function, and bacterial load in children with cystic fibrosis

BMC Pulmonary Medicine 2018; 18: ArtNo: 104

Jain R., Beckett VV., Konstan MW., Accurso FJ., Burns JL., Mayer-Hamblett N., Milla C., VanDevanter DR., Chmiel JF. KB001-A, a novel anti-inflammatory, found to be safe and welltolerated in cystic fibrosis patients infected with Pseudomonas aeruginosa

Journal of Cystic Fibrosis 2018; 17: 484 - 491

## Jaudszus A., Arnold C., Hentschel J., Hunniger K., Baier M., Mainz JG.

Increased cytokines in cystic fibrosis patients' upper airways during a new P-aeruginosa colonization

Pediatric Pulmonology 2018; 53: 881 - 887

# Kaluzna-Czyz M., Grzybowska-Chlebowczyk U., Wos H., Wiecek S.

Serum Hepcidin Level as a Marker of Iron Status in Children with Cystic Fibrosis

Mediators of Inflammation 2018; : ArtNo: 3040346

# Karandashova S., Kummarapurugu A., Zheng S., Kang L., Sun SM., Rubin BK., Voynow JA.

Neutrophil elastase correlates with increased sphingolipid content in cystic fibrosis sputum

Pediatric Pulmonology 2018; 53: 872 - 880

## Kummarapurugu AB., Afosah DK., Sankaranarayanan NV., Gangji RN., Zheng S., Kennedy T., Rubin BK., Voynow JA., Desai UR.

Molecular principles for heparin oligosaccharide-based inhibition of neutrophil elastase in cystic fibrosis

Journal of Biological Chemistry 2018; 293: 12480 - 12490

# Liu C., Pan XL., Xia B., Chen F., Jin YX., Bai F., Priebe G., Cheng ZH., Jin SG., Wu WH.

Construction of a Protective Vaccine Against Lipopolysaccharide-Heterologous Pseudomonas aeruginosa Strains Based on Expression Profiling of Outer Membrane Proteins During Infection *Frontiers in Immunology 2018; 9: ArtNo: 1737* 

## Manji J., Thamboo A., Tacey M., Garnis C., Chadha NK. The presence of Interleukin-13 in nasal lavage may be a predictor of nasal polyposis in pediatric patients with cystic fibrosis *Rhinology 2018; 56: 261 - 267*

Mauch RM., Norregaard LL., Ciofu O., Levy CE., Hoiby N. IgG avidity to Pseudomonas aeruginosa over the course of chronic lung biofilm infection in cystic fibrosis *Journal of Cystic Fibrosis 2018; 17: 356 - 359* 

## Montuschi P., Lucidi V., Paris D., Montemitro E., Shohreh R., Mores N., Melck D., Santini G., Majo F., Motta A.

Metabolomic Analysis by Nuclear Magnetic Resonance Spectroscopy as a New Approach to Understanding Inflammation and Monitoring of Pharmacological Therapy in Children and Young Adults With Cystic Fibrosis

Frontiers in Pharmacology 2018; 9: ArtNo: 595

# Scalbert-Dujardin M., Boldron A., Leroy E., Bazin J., Froment-Leclercq E.

Influenza vaccination and cystic fibrosis. Impact of an incentivisation campaign about influenza vaccination for patients attending the Dunkerque cystic fibrosis treatment centre and their health care workers

Revue des Maladies Respiratoires 2018; 35: 279 - 286

# Sheehan G., Bergsson G., McElvaney NG., Reeves EP., Kavanagh K.

The Human Cathelicidin Antimicrobial Peptide LL-37 Promotes the Growth of the Pulmonary Pathogen Aspergillus fumigatus *Infection and Immunity 2018; 86: 7:e00097-18* 

# Sousa SA., Seixas AMM., Leitao JH.

Postgenomic Approaches and Bioinformatics Tools to Advance the Development of Vaccines against Bacteria of the Burkholderia cepacia Complex

Vaccines 2018; 6: 2:34

### Tchoukaev A., Taytard J., Rousselet N., Rebeyrol C., Debray D., Blouquit-Laye S., Moisan MP., Foury A., Guillot L., Corvol H., Tabary O., Le Rouzic P.

Opposite Expression of Hepatic and Pulmonary Corticosteroid-Binding Globulin in Cystic Fibrosis Patients *Frontiers in Pharmacology 2018; 9: ArtNo: 545* 

# Wilton M., Halverson TWR., Charron-Mazenod L., Parkins MD., Lewenza S.

Secreted Phosphatase and Deoxyribonuclease Are Required by Pseudomonas aeruginosa To Defend against Neutrophil Extracellular Traps

Infection and Immunity 2018; 86: 9:e00403-18

# **Meeting Abstracts or Reports**

# Amaral MD., Boj SF., Shaw J., Leipziger J., Beekman JM.

Cystic fibrosis: Beyond the airways. Report on the meeting of the basic science working group in Loutraki, Greece *Journal of Cystic Fibrosis 2018; 17: 441 - 443* 

Mall MA., Hwang TC., Braakman I. Cystic fibrosis research topics featured at the 14th ECFS Basic Science Conference: Chairman's summary Journal of Cystic Fibrosis 2018; 17:

## Martiniano SL., Toprak D., Ong T., Zemanick ET., Daines CL., Muhlebach MS., Esther CR., Dellon EP.

Highlights from the 2017 North American Cystic Fibrosis Conference Pediatric Pulmonology 2018; 53: 979 - 986

# Microbiology

### Abdolrasouli A., Bercusson AC., Rhodes JL., Hagen F., Buil JB., Tang AYY., de Boer LL., Shah A., Milburn AJ., Elborn JS., Jones AL., Meis JF., Fisher MC., Schelenz S., Simmonds NJ., Armstrong-James D.

Airway persistence by the emerging multi-azole-resistant Rasamsonia argillacea complex in cystic fibrosis *Mycoses 2018; 61: 665 - 673* 

# Adjemian J., Olivier KN., Prevots DR.

Epidemiology of Pulmonary Nontuberculous Mycobacterial Sputum Positivity in Patients with Cystic Fibrosis in the United States, 2010-2014

Annals of the American Thoracic Society 2018; 15: 817 - 826

# Ahmed MN., Porse A., Sommer MOA., Hoiby N., Ciofu O.

Evolution of Antibiotic Resistance in Biofilm and Planktonic Pseudomonas aeruginosa Populations Exposed to Subinhibitory Levels of Ciprofloxacin

Antimicrobial Agents and Chemotherapy 2018; 62: 8:e00320-18

## Aiello TB., Levy CE., Zaccariotto TR., Paschoal IA., Pereira MC., da Silva MTN., Ribeiro JD., Ribeiro AF., Toro AADC., Mauch RM.

Prevalence and clinical outcomes of nontuberculous mycobacteria in a Brazilian cystic fibrosis reference center *Pathogens and Disease 2018; 76: 5:fty051* 

# Alhazmi A.

NOD-like receptor(s) and host immune responses with Pseudomonas aeruginosa infection

Inflammation Research 2018; 67: 479 - 493

## Bardin EE., Cameron SJS., Perdones-Montero A., Hardiman K., Bolt F., Alton EWFW., Bush A., Davies JC., Takats Z.

Metabolic Phenotyping and Strain Characterisation of Pseudomonas aeruginosa Isolates from Cystic Fibrosis Patients Using Rapid Evaporative Ionisation Mass Spectrometry *Scientific Reports 2018; 8: ArtNo: 10952* 

# Barlow G., Morice A.

Successful treatment of resistant Burkholderia multivorans infection in a patient with cystic fibrosis using ceftazidime/avibactam plus aztreonam

Journal of Antimicrobial Chemotherapy 2018; 73: 2270 - 2271

# Borisova D., Strateva T., Paunova-Krasteva T., Mitov I., Stoitsova S.

Phenotypic investigation of paired pseudomonas aeruginosa strains isolated from cystic fibrosis patients prior- and post-tobramycin treatment

Comptes Rendus de L Academie Bulgare des Sciences 2018; 71: 1044 - 1051

# Boutin S., Weitnauer M., Hassel S., Graeber SY., Stahl M., Dittrich AS., Mall MA., Dalpke AH.

One time quantitative PCR detection of Pseudomonas aeruginosa to discriminate intermittent from chronic infection in cystic fibrosis *Journal of Cystic Fibrosis 2018; 17: 348 - 355* 

## **Boyle M., Moore JE., Whitehouse JL., Bilton D., Downey DG.** Laboratory Diagnosis and Characterization of Fungal Disease in Patients with Cystic Fibrosis (CF): A Survey of Current UK Practice in a Cohort of Clinical Microbiology Laboratories

Mycopathologia 2018; 183: 723 - 729

# Breuer O., Caudri D., Akesson L., Ranganathan S., Stick SM., Schultz A.

The clinical significance of oropharyngeal cultures in young children with cystic fibrosis

European Respiratory Journal 2018; 51: 5:1800238

# Brown-Jaque M., Oyarzun LR., Cornejo-Sanchez T., Martin-Gomez MT., Gartner S., de Gracia J., Rovira S., Alvarez A., Jofre J., Gonzalez-Lopez JJ., Muniesa M.

Detection of Bacteriophage Particles Containing Antibiotic Resistance Genes in the Sputum of Cystic Fibrosis Patients *Frontiers in Microbiology 2018; 9: ArtNo: 856* 

# Cameron DR., Shan Y., Zalis EA., Isabella V., Lewis K.

A Genetic Determinant of Persister Cell Formation in Bacterial Pathogens

Journal of Bacteriology 2018; 200: 17:e00303-18

# Capizzani CPD., Cacador NC., Marques EA., Levy CE., Tonani

L., Torres LAGMM., Darini ALD.

A practical molecular identification of nonfermenting Gram-negative bacteria from cystic fibrosis *Brazilian Journal of Microbiology 2018; 49: 422 - 428* 

# Caskey S., Stirling J., Moore JE., Rendall JC.

Occurrence of Pseudomonas aeruginosa in waters: implications for patients with cystic fibrosis (CF) *Letters in Applied Microbiology 2018; 66: 537 - 541* 

# Caudri D., Turkovic L., Ng J., de Klerk NH., Rosenow T., Hall

GL., Ranganathan SC., Sly PD., Stick SM. The association between Staphylococcus aureus and subsequent bronchiectasis in children with cystic fibrosis *Journal of Cystic Fibrosis 2018; 17: 462 - 469* 

# Clark ST., Guttman DS., Hwang DM.

Diversification of Pseudomonas aeruginosa within the cystic fibrosis lung and its effects on antibiotic resistance FEMS Microbiology Letters 2018; 365: 6:fny026

# Chen M., Kondori N., Deng SW., van den Ende AHGG., Lackner

M., Liao WQ., de Hoog GS. Direct detection of Exophiala and Scedosporium species in sputa of patients with cystic fibrosis

Medical Mycology 2018; 56: 695 - 702

# Courtois N., Caspar Y., Maurin M.

Phenotypic and genetic resistance traits of Pseudomonas aeruginosa strains infecting cystic fibrosis patients: A French cohort study International Journal of Antimicrobial Agents 2018; 52: 358 - 364

### Cullen L., O'Connor A., McCormack S., Owens RA., Holt GS., Collins C., Callaghan M., Doyle S., Smith D., Schaffer K., Fitzpatrick DA., McClean S.

The involvement of the low-oxygen-activated locus of Burkholderia cenocepacia in adaptation during cystic fibrosis infection *Scientific Reports 2018; 8: ArtNo: 13386* 

# Daly SM., Sturge CR., Marshall-Batty KR., Felder-Scott CF., Jain R., Geller BL., Greenberg DE.

Antisense Inhibitors Retain Activity in Pulmonary Models of Burkholderia Infection

ACS Infectious Diseases 2018; 4: 806 - 814

# de Freitas MB., Moreira EAM., Tomio C., Moreno YMF., Daltoe FP., Barbosa E., Neto NL., Buccigrossi V., Guarino A.

Altered intestinal microbiota composition, antibiotic therapy and intestinal inflammation in children and adolescents with cystic fibrosis

PLoS One 2018; 13: 6:e0198457

## Delgado C., Florez L., Lollett I., Lopez C., Kangeyan S., Kumari H., Stylianou M., Smiddy RJ., Schneper L., Sautter RT., Smith D., Szatmari G., Mathee K.

Pseudomonas aeruginosa Regulated Intramembrane Proteolysis: Protease MucP Can Overcome Mutations in the AlgO Periplasmic Protease To Restore Alginate Production in Nonmucoid Revertants Journal of Bacteriology 2018; 200: 16:e00215-18

# Depluverez S., Daled S., De Waele S., Planckaert S., Schoovaerts J., Deforce D., Devreese B.

Microfluidics-based liquid chromatography/mass spectrometry multiple reaction monitoring approach for the relative quantification of Burkholderia cenocepacia secreted virulence factors *Rapid Communications in Mass Spectrometry* 2018; 32: 469 - 479

# Eikani MS., Nugent M., Poursina A., Simpson P., Levy H. Clinical course and significance of nontuberculous mycobacteria and

its subtypes in cystic fibrosis BMC Infectious Diseases 2018; 18: ArtNo: 311

# Fangous MS., Lazzouni I., Alexandre Y., Gouriou S., Boisrame S., Vallet S., Le Bihan J., Ramel S., Hery-Arnaud G., Le Berre R. Prevalence and dynamics of Lactobacillus sp in the lower respiratory tract of patients with cystic fibrosis

Research in Microbiology 2018; 169: 222 - 226

# Freschi L., Bertelli C., Jeukens J., Moore MP., Kukavica-Ibrulj I., Emond-Rheault JG., Hamel J., Fothergill JL., Tucker NP., McClean S., Klockgether J., de Soyza A., Brinkman FSL., Levesque RC., Winstanley C.

Genomic characterisation of an international Pseudomonas aeruginosa reference panel indicates that the two major groups draw upon distinct mobile gene pools

FEMS Microbiology Letters 2018; 365: 14:fny120

# Furukawa BS., Flume PA.

Nontuberculous Mycobacteria in Cystic Fibrosis Seminars in Respiratory and Critical Care Medicine 2018; 39: 383 -391

## Gade PAV., Olsen TB., Jensen PO., Kolpen M., Hoiby N., Henneberg KA., Sams T.

Modelling of ciprofloxacin killing enhanced by hyperbaric oxygen treatment in Pseudomonas aeruginosa PAO1 biofilms *PLoS One 2018; 13: 6:e0198909* 

## Gagne-Thivierge C., Barbeau J., Levesque RC., Charette SJ.

A new approach to study attached biofilms and floating communities from Pseudomonas aeruginosa strains of various origins reveals diverse effects of divalent ions

FEMS Microbiology Letters 2018; 365: 14:fny155

## Gao B., Gallagher T., Zhang Y., Elbadawi-Sidhu M., Lai ZJ., Fiehn O., Whiteson KL.

Tracking Polymicrobial Metabolism in Cystic Fibrosis Airways: Pseudomonas aeruginosa Metabolism and Physiology Are Influenced by Rothia mucilaginosa-Derived Metabolites *Msphere 2018; 3: 2:e00151-18* 

### Gloag ES., German GK., Stoodley P., Wozniak DJ.

Viscoelastic properties of Pseudomonas aeruginosa variant biofilms Scientific Reports 2018; 8: ArtNo: 9691

### Grahl N., Dolben EL., Filkins LM., Crocker AW., Willger SD., Morrison HG., Sogin ML., Ashare A., Gifford AH., Jacobs NJ., Schwartzman JD., Hogan DA.

Profiling of Bacterial and Fungal Microbial Communities in Cystic Fibrosis Sputum Using RNA

Msphere 2018; 3: 4:e00292-18

# Granchelli AM., Adler FR., Keogh RH., Kartsonaki C., Cox DR., Liou TG.

Microbial Interactions in the Cystic Fibrosis Airway Journal of Clinical Microbiology 2018; 56: 8:UNSP e00354-

### Groenewold MK., Massmig M., Hebecker S., Danne L., Magnowska Z., Nimtz M., Narberhaus F., Jahn D., Heinz DW., Jansch L., Moser J.

A phosphatidic acid-binding protein is important for lipid homeostasis and adaptation to anaerobic biofilm conditions in Pseudomonas aeruginosa

Biochemical Journal 2018; 475: 1885 - 1907

## Hahn A., Bendall ML., Gibson KM., Chaney H., Sami I., Perez GF., Koumbourlis AC., McCaffrey TA., Freishtat RJ., Crandall KA.

Benchmark Evaluation of True Single Molecular Sequencing to Determine Cystic Fibrosis Airway Microbiome Diversity *Frontiers in Microbiology 2018; 9: ArtNo: 1069* 

### Heacock-Kang Y., Zarzycki-Siek J., Sun Z., Poonsuk K., Bluhm AP., Cabanas D., Fogen D., McMillan IA., Chuanchuen R., Hoang TT.

Novel dual regulators of Pseudomonas aeruginosa essential for productive biofilms and virulence *Molecular Microbiology* 2018; 109: 401 - 414

# Heltshe SL., Khan U., Beckett V., Baines A., Emerson J., Sanders DB., Gibson RL., Morgan W., Rosenfeld M.

Longitudinal development of initial, chronic and mucoid Pseudomonas aeruginosa infection in young children with cystic fibrosis

Journal of Cystic Fibrosis 2018; 17: 341 - 347

# Klockgether J., Cramer N., Fischer S., Wiehlmannt L., Tummler B.

Long-Term Microevolution of Pseudomonas aeruginosa Differs between Mildly and Severely Affected Cystic Fibrosis Lungs *American Journal of Respiratory Cell and Molecular Biology 2018;* 59: 246 - 256

# Lore NI., Cigana C., Sipione B., Bragonzi A.

The impact of host genetic background in the Pseudomonas aeruginosa respiratory infections *Mammalian Genome 2018; 29: 550 - 557* 

### Lucca F., Guarnieri M., Ros M., Muffato G., Rigoli R., Da Dalt L. Antibiotic resistance evolution of Pseudomonas aeruginosa in cystic

fibrosis patients (2010-2013)

Clinical Respiratory Journal 2018; 12: 2189 - 2196

# Mahomed TG., Kock MM., Masekela R., Hoosien E., Ehlers MM.

Genetic relatedness of Staphylococcus aureus isolates obtained from cystic fibrosis patients at a tertiary academic hospital in Pretoria, South Africa

Scientific Reports 2018; 8: ArtNo: 12222

### Malhotra S., Limoli DH., English AE., Parsek MR., Wozniak DJ. Mixed Communities of Mucoid and Nonmucoid Pseudomonas aeruginosa Exhibit Enhanced Resistance to Host Antimicrobials *mBio* 2018; 9: 2:e00275-18

## Mariappan V., Thavagnanam S., Vellasamy KM., Teh CJS., Atiya N., Ponnampalavanar S., Vadivelu J.

Relapse of chronic melioidosis in a paediatric cystic fibrosis patient: first case report from Malaysia

BMC Infectious Diseases 2018; 18: ArtNo: 455

# Mastropasqua MC., Lamont I., Martin LW., Reid DW., D'Orazio M., Battistoni A.

Efficient zinc uptake is critical for the ability of Pseudomonas aeruginosa to express virulence traits and colonize the human lung Journal of Trace Elements in Medicine and Biology 2018; 48: 74 - 80

# Middleton MA., Layeghifard M., Klingel M., Stanojevic S., Yau YCW., Zlosnik JEA., Coriati A., Ratjen FA., Tullis ED., Stephenson A., Wilcox P., Freitag A., Chilvers M., McKinney M.,

Lavoie A., Wang PW., Guttman DS., Waters VJ. Epidemiology of Clonal Pseudomonas aeruginosa Infection in a Canadian Cystic Fibrosis Population

Annals of the American Thoracic Society 2018; 15: 827 - 836

### Mitchelmore PJ., Randall J., Bull MJ., Moore KA., O'Neill PA., Paszkiewicz K., Mahenthiralingam E., Scotton CJ., Sheldon CD., Withers NJ., Brown AR.

Molecular epidemiology of Pseudomonas aeruginosa in an unsegregated bronchiectasis cohort sharing hospital facilities with a cystic fibrosis cohort *Thorax 2018; 73: 677 - 679*  Muhlebach MS., Hatch JE., Einarsson GG., McGrath SJ., Gilipin DF., Lavelle G., Mirkovic B., Murray MA., McNally P., Gotman N., Thomas SD., Wolfgang MC., Gilligan PH., McElvaney NG., Elborn JS., Boucher RC., Tunney MM. Anaerobic bacteria cultured from cystic fibrosis airways correlate to

milder disease: a multisite study European Respiratory Journal 2018; 52: 1:1800242

# Muthu V., Sehgal IS., Dhooria S., Aggarwal AN., Agarwal R.

Utility of recombinant Aspergillus fumigatus antigens in the diagnosis of allergic bronchopulmonary aspergillosis: A systematic review and diagnostic test accuracy meta-analysis *Clinical and Experimental Allergy 2018; 48: 1107 - 1136* 

# Muthu V., Sehgal IS., Dhooria S., Bal A., Agarwal R.

Allergic bronchopulmonary aspergillosis presenting as nephrotic syndrome due to secondary amyloidosis: Case report and systematic review of the literature *Lung India 2018; 35: 332 - 335* 

# Olsowski M., Hoffmann F., Hain A., Kirchhoff L., Theegarten D.,

Todt D., Steinmann E., Buer J., Rath PM., Steinmann J. Exophiala dermatitidis isolates from various sources: using alternative invertebrate host organisms (Caenorhabditis elegans and Galleria mellonella) to determine virulence *Scientific Reports 2018; 8: ArtNo: 12747* 

# Phan J., Gallagher T., Oliver A., England WE., Whiteson K.

Fermentation products in the cystic fibrosis airways induce aggregation and dormancy-associated expression profiles in a CF clinical isolate of Pseudomonas aeruginosa *FEMS Microbiology Letters 2018; 365: 10:fny082* 

## Pincikova T., Paquin-Proulx D., Moll M., Flodstrom-Tullberg M., Hjelte L., Sandberg JK.

Severely Impaired Control of Bacterial Infections in a Patient With Cystic Fibrosis Defective in Mucosal-Associated Invariant T Cells *Chest 2018; 153: E93 - E96* 

# Pompilio A., Geminiani C., Bosco D., Rana R., Aceto A.,

**Bucciarelli T., Scotti L., Di Bonaventura G.** Electrochemically Synthesized Silver Nanoparticles Are Active Against Planktonic and Biofilm Cells of Pseudomonas aeruginosa and Other Cystic Fibrosis-Associated Bacterial Pathogens *Frontiers in Microbiology 2018; 9: ArtNo: 1349* 

# Poore TS., Virella-Lowell I., Guimbellot JS.

Potential pathogenicity of Inquilinus limosus in a pediatric patient with cystic fibrosis

# Pediatric Pulmonology 2018; 53: E21 - E23

**Pradeepan S., Wark P.** Pseudomonas pharyngitis in a cystic fibrosis patient *Respirology Case Reports 2018; 6: 5:UNSP e00325* 

# Price EP., Viberg LT., Kidd TJ., Bell SC., Currie BJ., Sarovich DS.

Transcriptomic analysis of longitudinal Burkholderia pseudomallei infecting the cystic fibrosis lung

Microbial Genomics 2018; 4: 8:000194

# Purcaro G., Rees CA., Melvin JA., Bomberger JM., Hill JE.

Volatile fingerprinting of Pseudomonas aeruginosa and respiratory syncytial virus infection in an in vitro cystic fibrosis co-infection model

Journal of Breath Research 2018; 12: 4:046001

# Rajkumari J., Borkotoky S., Murali A., Suchiang K., Mohanty SK., Busi S.

Attenuation of quorum sensing controlled virulence factors and biofilm formation in Pseudomonas aeruginosa by pentacyclic triterpenes, betulin and betulinic acid *Microbial Pathogenesis 2018; 118: 48 - 60* 

**Recio R., Branas P., Martinez MT., Chaves F., Orellana MA.** Effect of respiratory Achromobacter spp. infection on pulmonary function in patients with cystic fibrosis *Journal of Medical Microbiology 2018; 67: 952 - 956* 

Reece E., Doyle S., Greally P., Renwick J., McClean S. Aspergillus fumigatus Inhibits Pseudomonas aeruginosa in Coculture: Implications of a Mutually Antagonistic Relationship on Virulence and Inflammation in the CF Airway *Frontiers in Microbiology 2018; 9: ArtNo: 1205* 

## Rodriguez-Sevilla G., Garcia-Coca M., Romera-Garcia D., Aguilera-Correa JJ., Mahillo-Fernandez I., Esteban J., Perez-Jorge C.

Non-Tuberculous Mycobacteria multispecies biofilms in cystic fibrosis: development of an in vitro Mycobacterium abscessus and Pseudomonas aeruginosa dual species biofilm model International Journal of Medical Microbiology 2018; 308: 413 - 423

# Rodriguez-Sevilla G., Rigauts C., Vandeplassche E., Ostyn L., Mahillo-Fernandez I., Esteban J., Peremarch CPJ., Coenye T., Crabbe A.

Influence of three-dimensional lung epithelial cells and interspecies interactions on antibiotic efficacy against Mycobacterium abscessus and Pseudomonas aeruginosa

Pathogens and Disease 2018; 76: 4:fty034

# Ronchetti K., Tame JD., Paisey C., Thia LP., Doull I., Howe R., Mahenthiralingam E., Forton JT.

The CF-Sputum Induction Trial (CF-SpIT) to assess lower airway bacterial sampling in young children with cystic fibrosis: a prospective internally controlled interventional trial *Lancet Respiratory Medicine 2018; 6: 461 - 471* 

## Rossi E., Falcone M., Molin S., Johansen HK.

High-resolution in situ transcriptomics of Pseudomonas aeruginosa unveils genotype independent patho-phenotypes in cystic fibrosis lungs

Nature Communications 2018; 9: ArtNo: 3459

# Saeed A., Bosch A., Bettiol M., Gonzalez DLN., Erben MF., Lamberti Y.

Novel Guanidine Compound against Multidrug-Resistant Cystic Fibrosis-Associated Bacterial Species *Molecules* 2018: 23: 5:1158

# Salloum T., Nassour E., Araj GF., Abboud E., Tokajian S. Insights into the genome diversity and virulence of two clinical isolates of Burkholderia cenocepacia

Journal of Medical Microbiology 2018; 67: 1157 - 1167

# Schwarz C., Schulte-Hubbert B., Bend J., Abele-Horn M., Baumann I., Bremer W., Brunsmann F., Dieninghoff D., Eickmeier O., Ellemunter H., Fischer R., Grosse-Onnebrink J., Hammermann J., Hebestreit H., Hogardt M., Huegel C., Hug M., et al

CF Lung Disease - a German S3 Guideline: Module 2: Diagnostics and Treatment in Chronic Infection with Pseudomonas aeruginosa *Pneumologie 2018; 72: 347 - 392* 

### Seufert R., Sedlacek L., Kahl B., Hogardt M., Hamprecht A., Haase G., Gunzer F., Haas A., Grauling-Halama S., MacKenzie CR., Essig A., Stehling F., Sutharsan S., Dittmer S., Killengray D., Schmidt D., Eskandarian N., Steinmann E., et al

Prevalence and characterization of azole-resistant Aspergillus fumigatus in patients with cystic fibrosis: a prospective multicentre study in Germany

Journal of Antimicrobial Chemotherapy 2018; 73: 2047 - 2053

# Sfeir MM.

Burkholderia cepacia complex infections: More complex than the bacterium name suggest

Journal of Infection 2018; 77: 166 - 170

# Shao XL., Zhang XN., Zhang YC., Zhu M., Yang P., Yuan J., Xie YP., Zhou TH., Wang W., Chen S., Liang HH., Deng X.

RpoN-Dependent Direct Regulation of Quorum Sensing and the Type VI Secretion System in Pseudomonas aeruginosa PAO1 Journal of Bacteriology 2018; 200: 16:e00205-18

# Silva IN., Pessoa FD., Ramires MJ., Santos MR., Becker JD., Cooper VS., Moreira LM.

The OmpR Regulator of Burkholderia multivorans Controls Mucoidto-Nonmucoid Transition and Other Cell Envelope Properties Associated with Persistence in the Cystic Fibrosis Lung *Journal of Bacteriology 2018; 200: 17:e00216-18* 

# Teri A., Sottotetti S., Biffi A., Girelli D., D'Accico M., Arghittu M., Colombo C., Corti F., Pizzamiglio G., Cariani L.

Molecular typing of Burkholderia cepacia complex isolated from patients attending an Italian Cystic Fibrosis Centre *New Microbiologica 2018; 41: 141 - 144* 

# Tippett E., Ellis S., Wilson J., Kotsimbos T., Spelman D.

Mycobacterium abscessus Complex: Natural History and Treatment Outcomes at a Tertiary Adult Cystic Fibrosis Center International Journal of Mycobacteriology 2018; 7: 109 - 116

Tissot A., Thomas MF., Corris PA., Brodlie M.

NonTuberculous Mycobacteria infection and lung transplantation in cystic fibrosis: a worldwide survey of clinical practice *BMC Pulmonary Medicine 2018; 18: ArtNo: 86* 

### Turnbull AR., Murphy R., Behrends V., Lund-Palau H., Simbo A., Mariveles M., Alton EWFW., Bush A., Shoemark A., Davies JC.

Impact of T2R38 Receptor Polymorphisms on Pseudomonas aeruginosa Infection in Cystic Fibrosis American Journal of Respiratory and Critical Care Medicine 2018; 197: 1635 - 1638

# Van Dalem A., Herpol M., Echahidi F., Peeters C., Wybo I., De Wachter E., Vandamme P., Pierard D.

In Vitro Susceptibility of Burkholderia cepacia Complex Isolated from Cystic Fibrosis Patients to Ceftazidime-Avibactam and Ceftolozane-Tazobactam

Antimicrobial Agents and Chemotherapy 2018; 62: 9:e00590-18

# Wang RB., Welsh SK., Budev M., Goldberg H., Noone PG., Gray A., Zaas D., Boyer D.

Survival after lung transplantation of cystic fibrosis patients infected with Burkholderia dolosa (genomovar VI) *Clinical Transplantation 2018; 32: 5:e13236* 

Wee BA., Tai AS., Sherrard LJ., Ben Zakour NL., Hanks KR., Kidd TJ., Ramsay KA., Lamont I., Whiley DM., Bell SC., Beatson SA.

Whole genome sequencing reveals the emergence of a Pseudomonas aeruginosa shared strain sub-lineage among patients treated within a single cystic fibrosis centre

BMC Genomics 2018; 19: ArtNo: 644

Williams D., Fothergill JL., Evans B., Caples J., Haldenby S., Walshaw MJ., Brockhurst MA., Winstanley C., Paterson S. Transmission and lineage displacement drive rapid population genomic flux in cystic fibrosis airway infections of a Pseudomonas aeruginosa epidemic strain

Microbial Genomics 2018; 4: 3:000167

### Zuttion F., Ligeour C., Vidal O., Walte M., Morvan F., Vidal S., Vasseur JJ., Chevolot Y., Phaner-Goutorbe M., Schillers H. The anti-adhesive effect of glycoclusters on Pseudomonas aeruginosa bacteria adhesion to epithelial cells studied by AFM single cell force spectroscopy

Nanoscale 2018; 10: 12771 - 12778

# Nutrition

# Abu-El-Haija M., Uc A., Werlin SL., Freeman AJ., Georgieva M., Jojkic-Pavkov D., Kalnins D., Kochavi B., Koot BGP., Van

**Biervliet S., Walkowiak J., Wilschanski M., Morinville VD.** Nutritional Considerations in Pediatric Pancreatitis: A Position Paper from the NASPHAN Pancreas Committee and ESPHAN Cystic Fibrosis/Pancreas Working Group

Journal of Pediatric Gastroenterology and Nutrition 2018; 67: 131 - 143

# de Assisi MJC., Cartaxo CGB., Costa MJD., Queiroz DJM., Persuhn DC., Goncalves MDR.

Association between hematological profile and serum 25hydroxyvitamin D levels and Fokl polymorphism in individuals with cystic fibrosis

Revista de Nutricao-Brazilian Journal of Nutrition 2018; 31: 211 - 220

# Dong R., Wang NY., Yang YF., Ma L., Du Q., Zhang W., Tran AH., Jung H., Soh A., Zheng YJ., Zheng S.

Review on Vitamin K Deficiency and its Biomarkers: Focus on the Novel Application of PIVKA-II in Clinical Practice *Clinical Laboratory* 2018; 64: 413 - 424

# Gea J., Sancho-Munoz A., Chalela R.

Nutritional status and muscle dysfunction in chronic respiratory diseases: stable phase versus acute exacerbations *Journal of Thoracic Disease 2018; 10:* 

## Morin C., Cantin AM., Vezina FA., Fortin S.

The Efficacy of MAG-DHA for Correcting AA/DHA Imbalance of Cystic Fibrosis Patients

Marine Drugs 2018; 16: 6:184

# Munck A., Boulkedid R., Weiss L., Foucaud P., Wizla-Derambure N., Reix P., Bremont F., Derelle J., Schroedt J., Alberti C.

Nutritional Status in the First 2 Years of Life in Cystic Fibrosis Diagnosed by Newborn Screening

Journal of Pediatric Gastroenterology and Nutrition 2018; 67: 123 - 130

# Paranza LO., Sanabria M., Gonzalez L., Ascurra M.

Nutritional characterization of children and adolescents with cystic fibrosis *Pediatria-asuncion 2017; 44: 205 - 217* 

## Papalexopoulou N., Dassios TG., Lunt A., Bartlett F., Perrin F., Bossley CJ., Wyatt HA., Greenough A.

Nutritional status and pulmonary outcome in children and young people with cystic fibrosis

Respiratory Medicine 2018; 142: 60 - 65

# Ruseckaite R., Pekin N., King S., Carr E., Ahern S., Oldroyd J., Earnest A., Wainwright C., Armstrong D.

Evaluating the impact of 2006 Australasian Clinical Practice Guidelines for nutrition in children with cystic fibrosis in Australia *Respiratory Medicine 2018; 142: 7 - 14* 

# Salviano AF., Barreira FEN., Silva CDE., Almeida PCD., de Oliveira VD.

Adherence to dietary treatment and nutritional status of adolescentes with cystic fibrosis

Nutricion Clinica Y Dietetica Hospitalaria 2017; 37: 149 - 153

## Sagel SD., Khan U., Jain R., Graff G., Daines CL., Dunitz JM., Borowitz D., Orenstein DM., Abdulhamid I., Noe J., Clancy JP., Slovis B., Rock MJ., Mccoy KS., Strausbaugh S., Livingston FR., Papas KA., Shaffer ML.

Effects of an Antioxidant-enriched Multivitamin in Cystic Fibrosis A Randomized, Controlled, Multicenter Clinical Trial American Journal of Respiratory and Critical Care Medicine 2018;

American Journal of Respiratory and Critical Care Medicine 2018 198: 639 - 647

# Tun RRLC., Porhownik N., Taback S., Oleschuk C.

Effect of high dose vitamin D3 therapy on serum vitamin D3 levels in vitamin D insufficient adults with cystic fibrosis *Clinical Nutrition Espen 2018; 23: 84 - 88* 

# Physiotherapy

# Gursli S., Sandvik L., Bakkeheim E., Skrede B., Stuge B.

Evaluation of a novel technique in airway clearance therapy Specific Cough Technique (SCT) in cystic fibrosis: A pilot study of a series of N-of-I randomised controlled trials *Sage Open Medicine 2017; 5:* 

# O'Sullivan KJ., Collins L., McGrath D., Linnane B., O'Sullivan L., Dunne CP.

Children With Cystic Fibrosis May Be Performing Oscillating Positive Expiratory Pressure Therapy Incorrectly *Chest 2018; 154: 231 - 232* 

# Radtke T., Boni L., Bohnacker P., Maggi-Beba M., Fischer P., Kriemler S., Benden C., Dressel H.

Acute effects of combined exercise and oscillatory positive expiratory pressure therapy on sputum properties and lung diffusing capacity in cystic fibrosis: a randomized, controlled, crossover trial *BMC Pulmonary Medicine 2018; 18: ArtNo: 99* 

# Reychler G., Debier E., Contal O., Audag N.

Intrapulmonary Percussive Ventilation as an Airway Clearance Technique in Subjects With Chronic Obstructive Airway Diseases *Respiratory Care 2018; 63: 620 - 631* 

## Robinson PD., Lum S., Moore C., Hardaker KM., Benseler N., Aurora P., Cooper P., Fitzgerald D., Jensen R., McDonald R., Selvadurai H., Ratjen F., Stanojevic S.

Comparison of facemask and mouthpiece interfaces for multiple breath washout measurements Journal of Cystic Fibrosis 2018; 17: 511 - 517

### Spinou A.

Physiotherapy in cystic fibrosis A comprehensive clinical overview *Pneumon 2018; 31: 35 - 43* 

## Uzmezoglu B., Altiay G., Ozdemir L., Tuna H., Sut N.

The Efficacy of Flutter (R) and Active Cycle of Breathing Techniques in Patients with Bronchiectasis: A Prospective, Randomized, Comparative Study

Turkish Thoracic Journal 2018; 19: 103 - 109

# von Greyerz-Bokma J.

Manual therapy for cystic fibrosis - a useful supplement to respiratory therapy

Manuelle Therapie 2018; 22: 74 - 77

# Psychosocial

# Alves SP., Bueno D.

The profile of caregivers to pediatric patients with cystic fibrosis *Ciencia & Saude Coletiva 2018; 23: 1451 - 1457* 

### Blasi F., Carnovale V., Cimino G., Lucidi V., Salvatore D., Messore B., Bartezaghi M., Muscianisi E., Porpiglia PA. Treatment compliance in cystic fibrosis patients with chronic

Pseudomonas aeruginosa infection treated with tobramycin inhalation powder: The FREE study *Respiratory Medicine 2018; 138: 88 - 94* 

# Bourke M., Houghton C.

Exploring the need for Transition Readiness Scales within cystic fibrosis services: A qualitative descriptive study *Journal of Clinical Nursing 2018; 27: 2814 - 2824* 

# Branch-Smith C., Shaw T., Lin A., Runions K., Payne D., Nguyen R., Hugo H., Balding L., Cross D.

Bullying and Mental Health Amongst Australian Children and Young People With Cystic Fibrosis American Journal of Orthopsychiatry 2018; 88: 402 - 412

# Cepuch G., Tomaszek L., Pawlik L.

Identification of factors determining anxiety, depression and aggression, with particular emphasis on pain in Polish adolescents and young adults with cystic fibrosis *Family Medicine and Primary Care Review 2018; 20: 112 - 116* 

# Chen E., Homa K., Goggin J., Sabadosa KA., Hempstead S.,

Marshall BC., Faro A., Dellon EP. End-of-life practice patterns at US adult cystic fibrosis care centers: A national retrospective chart review

Journal of Cystic Fibrosis 2018; 17: 548 - 554

# Cronly J., Duff AJ., Riekert KA., Perry IJ., Fitzgerald AP., Horgan A., Lehane E., Howe B., Chroinin MN., Savage E.

Online versus paper-based screening for depression and anxiety in adults with cystic fibrosis in Ireland: a cross-sectional exploratory study

# BMJ Open 2018; 8: 1:e019305

**Crowley EM., Bosslet GT., Khan B., Ciccarelli M., Brown CD.** Impact of social complexity on outcomes in cystic fibrosis after transfer to adult care *Badiatria Bulmonology* 2018, 53, 735 – 740

Pediatric Pulmonology 2018; 53: 735 - 740

# Dellon EP., Helms SW., Hailey CE., Shay R., Carney SD., Schmidt HJ., Brown DE., Prieur MG.

Exploring knowledge and perceptions of palliative care to inform integration of palliative care education into cystic fibrosis care *Pediatric Pulmonology 2018; 53: 1218 - 1224* 

# Dempster NR., Wildman BG., Masterson TL., Omlor GJ.

Understanding Treatment Adherence With the Health Belief Model in Children With Cystic Fibrosis

Health Education & Behavior 2018; 45: 435 - 443

### Floch J., Zettl A., Fricke L., Weisser T., Grut L., Vilarinho T., Stav E., Ascolese A., Schauber C.

User Needs in the Development of a Health App Ecosystem for Self-Management of Cystic Fibrosis: User-Centered Development Approach

JMIR Mhealth and Uhealth 2018; 6: 5:e113

Jessup M., Li A., Fulbrook P., Bell SC.

The experience of men and women with cystic fibrosis who have become a parent: A qualitative study *Journal of Clinical Nursing 2018; 27: 1702 - 1712* 

# Keyte R., Egan H., Jackson C., Nash E., Regan A., Mantzios M.

A weekend/weekday comparison of adherence to daily treatment regimens in adults with cystic fibrosis *Health Psychology Report 2018; 6: 146 - 157* 

## Knudsen KB., Boisen KA., Katzenstein TL., Mortensen LH., Pressler T., Skov M., Jarden M.

Living with cystic fibrosis - a qualitative study of a life coaching intervention

Patient Preference and Adherence 2018; 12: 585 - 594

### Li SS., Hayes D., Tobias JD., Morgan WJ., Tumin D. Health insurance and use of recommended routine care in adults with cystic fibrosis

Clinical Respiratory Journal 2018; 12: 1981 - 1988

# Lonabaugh KP., O'Neal KS., McIntosh H., Condren M.

Cystic fibrosis-related education: Are we meeting patient and caregiver expectations?

Patient Education and Counseling 2018; 101: 1865 - 1870 Orenstein DM., Abood RN.

# Cost(s) of caring for patients with cystic fibrosis

Current Opinion in Pediatrics 2018; 30: 393 - 398

# Quigley SJ., Linnane B., Connellan S., Ward A., Ryan P.

Psychosocial Distress and Knowledge Deficiencies in Parents of Children in Ireland Who Carry an Altered Cystic Fibrosis Gene Journal of Genetic Counseling 2018; 27: 589 - 596

# Wood J., Jenkins S., Putrino D., Mulrennan S., Morey S., Cecins N., Hill K.

High usability of a smartphone application for reporting symptoms in adults with cystic fibrosis

Journal of Telemedicine and Telecare 2018; 24: 547 - 552

Zubrzycka R.

Coping with stress by mothers of children and adolescents with cystic fibrosis

Advances in Respiratory Medicine 2018; 86: 86 - 91

# Pulmonology

### Aanaes K., Alanin MC., Nielsen KG., Jorgensen MM., von Buchwald C., Holby N., Johansen HK., Johannesen HH., Mortensen J.

The accessibility of topical treatment in the paranasal sinuses on operated cystic fibrosis patients assessed by scintigraphy *Rhinology 2018; 56: 268 - 273* 

# Combret Y., Medrinal C., Prieur G., Quesada AR., Le Roux P., Reychler G.

Effect of backpack carrying on forced vital capacity in cystic fibrosis: A randomized crossover-controlled trial *PLoS One 2018; 13: 5:e0196750* 

**De Rose V., Molloy K., Gohy S., Pilette C., Greene CM.** Airway Epithelium Dysfunction in Cystic Fibrosis and COPD *Mediators of Inflammation 2018; : ArtNo: 1309746* 

# Dingemans J., Eyns H., Willekens J., Monsieurs P., Van Houdt R., Cornelis P., Malfroot A., Crabbe A.

Intrapulmonary percussive ventilation improves lung function in cystic fibrosis patients chronically colonized with Pseudomonas aeruginosa: a pilot cross-over study

European Journal of Clinical Microbiology & Infectious Diseases 2018; 37: 1143 - 1151

# El Basha N.

Impact of underlying cause of bronchiectasis on clinical outcome: A comparative study on CF and Non-CF bronchiectasis in Egyptian children

Egyptian Pediatric Association Gazette 2018; 66: 49 - 53

Gaisl T., Bregy L., Stebler N., Gaugg MT., Bruderer T., Garcia-Gomez D., Moeller A., Singer F., Schwarz EI., Benden C., Sinues PML., Zenobi R., Kohler M.

Real-time exhaled breath analysis in patients with cystic fibrosis and controls

Journal of Breath Research 2018; 12: 3:036013

## Hilton N., Solis-Moya A.

Respiratory muscle training for cystic fibrosis (Review) Cochrane Database of Systematic Reviews 2018; 5:CD006112

Insa K., Elisabeth K., Sophie Y., Nicolas R., Sylvia N., Kathryn R., Carmen C., Philipp L.

The Swiss Cystic Fibrosis Infant Lung Development (SCILD) cohort Swiss Medical Weekly 2018; 148: ArtNo: w14618

Konig P., Ner Z., Acton JD., Ge B., Hewett J. Is an FEV1 of 80% predicted a normal spirometry in cystic fibrosis children and adults?

Clinical Respiratory Journal 2018; 12: 2397 - 2403

Koucky V., Skalicka V., Pohunek P. Nitrogen multiple breath washout test for infants with cystic fibrosis *European Respiratory Journal 2018; 52: 2:1800015* 

Krause K., Kopp BT., Tazi MF., Caution K., Hamilton K., Badr A., Shrestha C., Tumin D., Hayes D., Robledo-Avila F., Hall-Stoodley L., Klamer BG., Zhang XL., Partida-Sanchez S., Parinandi NL., Kirkby SE., Dakhlallah D., McCoy KS., et al The expression of Mirc1/Mir17-92 cluster in sputum samples correlates with pulmonary exacerbations in cystic fibrosis patients *Journal of Cystic Fibrosis 2018; 17: 454 - 461* 

Ma JT., Tang C., Kang L., Voynow JA., Rubin BK. Cystic Fibrosis Sputum Rheology Correlates With Both Acute and Longitudinal Changes in Lung Function *Chest 2018; 154: 370 - 377* 

## McNally P., O'Rourke J., Fantino E., Chacko A., Pabary R., Turnbull A., Grant T., O'Sullivan N., Wainwright C., Linnane B., Davies JC., Sly PD.

Pooling of bronchoalveolar lavage in children with cystic fibrosis does not adversely affect the microbiological yield or sensitivity in detecting pulmonary inflammation

Journal of Cystic Fibrosis 2018; 17: 391 - 399

# Monroe EJ., Pierce DB., Ingraham CR., Johnson GE., Shivaram GM., Valji K.

An Interventionalist's Guide to Hemoptysis in Cystic Fibrosis Radiographics 2018; 38: 624 - 641

Pallin M., Keating D., Kaye DM., Kotsimbos T., Wilson JW. Subclinical Left Ventricular Dysfunction is Influenced by Genotype Severity in Patients with Cystic Fibrosis *Clinical Medicine Insights-circulatory Respiratory and Pulmonary* 2018; 12: ArtNo: UNSP 117

# Pezoa A., Jorquera P., Madrid R., Maturana P., Viviani P., Caussade S.

Spirometric caracterization of cystic fibrosis patients Revista Chilena de Pediatria-chile 2018; 89: 332 - 338

# Radtke T., Boni L., Bohnacker P., Fischer P., Bendend C., Dressel H.

The many ways sputum flows - Dealing with high within-subject variability in cystic fibrosis sputum rheology *Respiratory Physiology & Neurobiology 2018; 254: 36 - 39* 

# **Ring AM., Buchvald FF., Holgersen MG., Green K., Nielsen KG.** Fitness and lung function in children with primary ciliary dyskinesia and cystic fibrosis *Respiratory Medicine 2018; 139: 79 - 85*

# Roberts JM., Dai DLY., Hollander Z., Ng RT., Tebbutt SJ., Wilcox PG., Sin DD., Quon BS.

Multiple reaction monitoring mass spectrometry to identify novel plasma protein biomarkers of treatment response in cystic fibrosis pulmonary exacerbations

Journal of Cystic Fibrosis 2018; 17: 333 - 340

### Sanders DB., Li ZH., Zhao QQ., Farrell PM. Poor recovery from a pulmonary exacerbation does not lead to accelerated FEV1 decline Journal of Cystic Fibrosis 2018; 17: 492 - 495

Sanders DB., Zhang ZM., Farrell PM., Lai HJ.

Early life growth patterns persist for 12 years and impact pulmonary outcomes in cystic fibrosis

# Journal of Cystic Fibrosis 2018; 17: 528 - 535

# Saygi EK., Coskun OK.

Pulmonary rehabilitation in patients with cystic fibrosis Turkish Journal of Physical Medicine and Rehabilitation 2017; 63: 96 - 103

## Sklar MC., Dres M., Rittayamai N., West B., Grieco DL., Telias I., Junhasavasdikul D., Rauseo M., Pham T., Madotto F., Campbell C., Tullis E., Brochard L.

High-flow nasal oxygen versus noninvasive ventilation in adult patients with cystic fibrosis: a randomized crossover physiological study

Annals of Intensive Care 2018; 8: ArtNo: 85

Stephen MJ., Long A., Bonsall C., Hoag JB., Shah S., Bisberg D., Holsclaw D., Varlotta L., Fiel S., Du D., Zanni R., Hadjiliadis D. Daily spirometry in an acute exacerbation of adult cystic fibrosis patients

Chronic Respiratory Disease 2018; 15: 258 - 264

## **Tabatabaei SA., Panahandeh G., Khanbabaei G., Sadr S.** The Acute Effect of Inhaled NaCl 5%, Per CF TRUST Protocol, on Spirometry Indices in Patients Over Six Years with Cystic Fibrosis *Archives of Pediatric Infectious Diseases 2018; 6: 2:e12063*

# van Horck M., van de Kant K., Winkens B., Wesseling G., Gulmans V., Hendriks H., van der Grinten C., Jobsis Q., Dompeling E.

Risk factors for lung disease progression in children with cystic fibrosis

European Respiratory Journal 2018; 51: 6:1702509

### Vilozni D., Dagan A., Lavie M., Sarouk I., Bat-El Bar-Aluma., Ashkenazi M., Mendelovich SL., Betzalel Y., Efrati O. The Value of Measuring Inspiratory Capacity in Subjects With Cystic Fibrosis

Respiratory Care 2018; 63: 981 - 987

### Wagener JS., Millar SJ., Mayer-Hamblett N., Sawicki GS., McKone EF., Goss CH., Konstan MW., Morgan WJ., Pasta DJ., Moss RB.

Lung function decline is delayed but not decreased in patients with cystic fibrosis and the R117H gene mutation

Journal of Cystic Fibrosis 2018; 17: 503 - 510

# Wagener JS., Williams MJ., Millar SJ., Morgan WJ., Pasta DJ., Konstan MW.

Pulmonary exacerbations and acute declines in lung function in patients with cystic fibrosis Journal of Cystic Fibrosis 2018; 17: 496 - 502

## Wine JJ., Hansson GC., Konig P., Joo NS., Ennund A., Pieper M. Progress in understanding mucus abnormalities in cystic fibrosis airways

Journal of Cystic Fibrosis 2018; 17:

# Wood J., Sawyer A., Mulrennan S., Bullock A.

Respiratory exacerbation in a young adult with cystic fibrosis and tricuspid atresia

Respirology Case Reports 2018; 6: 5:UNSP e00318

# Radiology

### Engjom T., Kavaliauskiene G., Tjora E., Erchinger F., Wathle G., Laerum BN., Njolstad PR., Frokjaer JB., Gilja OH., Dimcevski G., Haldorsen IS.

Sonographic pancreas echogenicity in cystic fibrosis compared to exocrine pancreatic function and pancreas fat content at Dixon-MRI *PLoS One 2018; 13: 7:e0201019* 

# Engjom T., Nylund K., Erchinger F., Stangeland M., Laerum BN., Mezl M., Jirik R., Gilja OH., Dimcevski G.

Contrast-enhanced ultrasonography of the pancreas shows impaired perfusion in pancreas insufficient cystic fibrosis patients BMC Medical Imaging 2018; 18: ArtNo: 14

## Muller PA., Mueller JL., Mellenthin M., Murthy R., Capps M., Wagner BD., Alsaker M., Deterding R., Sagel SD., Hoppe J. Evaluation of surrogate measures of pulmonary function derived from electrical impedance tomography data in children with cystic fibrosis

Physiological Measurement 2018; 39: 4:045008 Pennati F., Roach DJ., Clancy JP., Brody AS., Fleck RJ., Aliverti

# **A., Woods JC.** Assessment of pulmonary structure-function relationships in young

children and adolescents with cystic fibrosis by multivolume proton-MRI and CT

Journal of Magnetic Resonance Imaging 2018; 48: 531 - 542

Pfahler MHC., Kratzer W., Leichsenring M., Graeter T., Schmidt SA., Wendlik I., Lormes E., Schmidberger J., Fabricius D. Point shear wave elastography of the pancreas in patients with cystic fibrosis: a comparison with healthy controls *Abdominal Radiology 2018; 43: 2384 - 2390* 

Schafer J., Griese M., Chandrasekaran R., Chotirmall SH., Hartl

**D.** Pathogenesis, imaging and clinical characteristics of CF and non-CF bronchiectasis

BMC Pulmonary Medicine 2018; 18: ArtNo: 79

### Wielputz MO., von Stackelberg O., Stahl M., Jobst BJ., Eichinger M., Puderbach MU., Nahrlich L., Barth S., Schneider C., Kopp MV., Ricklefs I., Buchholz M., Tummler B., Dopfer C., Vogel-Claussen J., Kauczor HU., Mall MA.

Multicentre standardisation of chest MRI as radiation-free outcome measure of lung disease in young children with cystic fibrosis *Journal of Cystic Fibrosis 2018; 17: 518 - 527* 

# Screening

## Archibald AD., Smith MJ., Burgess T., Scarff KL., Elliott J., Hunt CE., Barns-Jenkins C., Holt C., Sandoval K., Kumar VS., Ward L., Allen EC., Collis SV., Cowie S., Francis D., Delatycki MB., Yiu EM., Massie RJ., Pertile MD., et al

Reproductive genetic carrier screening for cystic fibrosis, fragile X syndrome, and spinal muscular atrophy in Australia: outcomes of 12,000 tests

Genetics in Medicine 2018; 20: 513 - 523

### Currier RJ.

Single-Gene Sequencing in Newborn Screening: Success, Challenge, Hope

Hastings Center Report 2018; 48:

## Di Pietro ML., Teleman AA., Gonzalez-Melado FJ., Zace D., Di Raimo FR., Lucidi V., Refolo P.

Implementing carrier screening for cystic fibrosis outside the clinic: ethical analysis in the light of the personalist view *Clinica Terapeutica 2018; 169: E71 - E76* 

### Edmondson C., Grime C., Prasad A., Cowlard J., Nwokoro CEC., Ruiz G., Wallis C., Balfour-Lynn IM.

Cystic fibrosis newborn screening: outcome of infants with normal sweat tests

Archives of Disease in Childhood 2018; 103: 753 - 756

# Gokdemir Y., Vatansever P., Karadag B., Seyrekel T., Baykan O., Ikizoglu NB., Ersu R., Karakoc F., Haklar G.

Performance Evaluation of a New Coulometric Endpoint Method in Sweat Testing and Its Comparison With Classic Gibson&Cooke and Chloridometer Methods in Cystic Fibrosis *Frontiers in Pediatrics 2018; 6: ArtNo: 133* 

### Ibarra-Gonzalez I., Campos-Garcia FJ., Herrera-Perez LD., Martinez-Cruz P., Moreno-Graciano CM., Contreras-Capetillo SN., Leon-Burgos V., Maldonado-Solis FA., Alcantara-Ortigoza MA., del Angel AG., Vela-Amieva M.

Newborn cystic fibrosis screening in southeastern Mexico: Birth prevalence and novel CFTR gene variants Journal of Medical Screening 2018; 25: 119 - 125

Lumertz MS., de Moura A., Pinto LA., Camargos PAM.,

# Marostica PJC.

Comparison between the outcome of preschool children with cystic fibrosis identified by newborn screening or by clinical symptoms *Scientia Medica 2018; 28: 2:29566* 

# Martini K., Gygax CM., Benden C., Morgan AR., Parker GJM., Frauenfelder T.

Volumetric dynamic oxygen-enhanced MRI (OE-MRI): comparison with CT Brody score and lung function in cystic fibrosis patients *European Radiology 2018; 28: 4037 - 4047* 

# Neemuchwala F., Taki M., Secord E., Nasr SZ.

Newborn Screening Saves Lives but Cannot Replace the Need for Clinical Vigilance

Case Reports in Pediatrics 2018; : ArtNo: 7217326

# Rispoli T., de Castro SM., Grandi T., Prado M., Filippon L., da Silva CMD., Vargas JE., Rossetti LMR.

A Low-Cost and Simple Genetic Screening for Cystic Fibrosis Provided by the Brazilian Public Health System Journal of Pediatrics 2018; 199: 272 -

# Schmidt M., Werbrouck A., Verhaeghe N., De Wachter E.,

Simoens S., Annemans L., Putman K. Strategies for newborn screening for cystic fibrosis: A systematic review of health economic evaluations *Journal of Cystic Fibrosis 2018; 17: 306 - 315* 

# Therapy (Non Antimicrobial)

# Abou Alaiwa MH., Launspach JL., Grogan B., Carter S., Zabner J., Stoltz DA., Singh PK., McKone EF., Welsh MJ. Ivacaftor-induced sweat chloride reductions correlate with increases in airway surface liquid pH in cystic fibrosis

JCI Insight 2018; 3: 15:e121468

### Bennett WD., Zeman KL., Laube BL., Wu JH., Sharpless G., Mogayzel PJ., Donaldson SH.

Homogeneity of Aerosol Deposition and Mucociliary Clearance are Improved Following Ivacaftor Treatment in Cystic Fibrosis Journal of Aerosol Medicine and Pulmonary Drug Delivery 2018; 31: 204 - 211

**Carlile GW., Yang Q., Matthes E., Liao J., Radinovic S., Miyamoto C., Robert R., Hanrahan JW., Thomas DY.** A novel triple combination of pharmacological chaperones improves F508del-CFTR correction

Scientific Reports 2018; 8: ArtNo: 11404

## Chin S., Hung M., Won A., Wu YS., Ahmadi S., Yang DH., Elmallah S., Toutah K., Hamilton CM., Young RN., Viirre RD., Yip CM., Bear CE.

Lipophilicity of the Cystic Fibrosis Drug, Ivacaftor (VX-770), and Its Destabilizing Effect on the Major CF-causing Mutation: F508del *Molecular Pharmacology 2018; 94: 917 - 925* 

# Cho DY., Lim DJ., Mackey C., Weeks CG., Garcia JAP., Skinner D., Grayson JW., Hill HS., Alexander DK., Zhang SY., Woodworth BA.

L-Methionine anti-biofilm activity against Pseudomonas aeruginosa is enhanced by the cystic fibrosis transmembrane conductance regulator potentiator, ivacaftor

International Forum of Allergy & Rhinology 2018; 8: 577 - 583

# Cholon DM., Gentzsch M.

Recent progress in translational cystic fibrosis research using precision medicine strategies Journal of Cystic Fibrosis 2018; 17:

# Christian M., Lars CH., Thomas K., Astrid H., Cecile R., Urs B., Christian B.

First experience in Switzerland in Phe508del homozygous cystic fibrosis patients with end-stage pulmonary disease enrolled in a lumacaftor-ivacaftor therapy trial - preliminary results *Swiss Medical Weekly 2018; 148: ArtNo: w14593* 

# Conese M., Beccia E., Castellani S., Di Gioia S., Colombo C., Angiolillo A., Carbone A.

The long and winding road: stem cells for cystic fibrosis Expert Opinion on Biological Therapy 2018; 18: 281 - 292

# Cortjens B., de Jong R., Bonsing JG., van Woensel JBM., Antonis AFG., Bem RA.

Local dornase alfa treatment reduces NETs-induced airway obstruction during severe RSV infection *Thorax 2018; 73: 578 - 580* 

# Cossu C., Fiore M., Baroni D., Capurro V., Caci E., Garcia-

Valverde M., Quesada R., Moran O. Anion-Transport Mechanism of a Triazole-Bearing Derivative of Prodigiosine: A Candidate for Cystic Fibrosis Therapy *Frontiers in Pharmacology 2018; 9: ArtNo: 852* 

#### **DeSimone E., Tilleman J., Giles ME., Moussa B.** Cystic Fibrosis Undate on Treatment Guidelines and Ne

Cystic Fibrosis Update on Treatment Guidelines and New Recommendations

US Pharmacist 2018; 43: 16 - 21

# Farrow N., Cmielewski P., Donnelley M., Rout-Pitt N., Moodley Y., Bertoncello I., Parsons D.

Epithelial disruption: a new paradigm enabling human airway stem cell transplantation

Stem Cell Research & Therapy 2018; 9: ArtNo: 153

# **Goralski JL., Wu D., Thelin WR., Boucher RC., Button B.** The in vitro effect of nebulised hypertonic saline on human bronchial epithelium

European Respiratory Journal 2018; 51: 5:1702652

Graeber SY., Dopfer C., Naehrlich L., Gyulumyan L., Scheuermann H., Hirtz S., Wege S., Mairbaurl H., Dorda M., Hyde R., Bagheri-Hanson A., Rueckes-Nilges C., Fischer S., Mall MA., Tummler B.

Effects of Lumacaftor-Ivacaftor Therapy on Cystic Fibrosis Transmembrane Conductance Regulator Function in Phe508del Homozygous Patients with Cystic Fibrosis American Journal of Respiratory and Critical Care Medicine 2018; 197: 1433 - 1442

## Guichard MJ., Kinoo D., Aubriot AS., Bauwens N., Gougue J., Vermeulen F., Lebecque P., Leal T., Vanbever R.

Impact of PEGylation on the mucolytic activity of recombinant human deoxyribonuclease I in cystic fibrosis sputum *Clinical Science 2018; 132: 1439 - 1452* 

# Hagemeijer MC., Siegwart DJ., Strug LJ., Cebotaru L., Torres MJ., Sofoluwe A., Beekman JM.

Translational research to enable personalized treatment of cystic fibrosis

Journal of Cystic Fibrosis 2018; 17:

# Heltshe SL., Rowe SM., Skalland M., Baines A., Jain M. Ivacaftor-treated Patients with Cystic Fibrosis Derive Long-Term Benefit Despite No Short-Term Clinical Improvement American Journal of Respiratory and Critical Care Medicine 2018; 197: 1483 - 1486

Li HY., Pesce E., Sheppard DN., Singh AK., Pedemonte N. Therapeutic approaches to CFTR dysfunction: From discovery to drug development

Journal of Cystic Fibrosis 2018; 17:

## Kirkham HS., Staskon F., Hira N., McLane D., Kilgore KM., Parente A., Kim S., Sawicki GS.

Outcome evaluation of a pharmacy-based therapy management program for patients with cystic fibrosis *Pediatric Pulmonology 2018; 53: 720 - 727* 

# McCarthy C., Brewington JJ., Harkness B., Clancy JP., Trapnell BC.

Personalised CFTR pharmacotherapeutic response testing and therapy of cystic fibrosis

European Respiratory Journal 2018; 51: 6:1702457

# McCrory BE., Harper HN., McPhail GL.

Use and Incidence of Adverse Effects of Proton Pump Inhibitors in Patients with Cystic Fibrosis

Pharmacotherapy 2018; 38: 725 - 729

# Moore PJ., Tarran R.

The epithelial sodium channel (ENaC) as a therapeutic target for cystic fibrosis lung disease *Expert Opinion on Therapeutic Targets 2018; 22: 687 - 701* 

# Nemchenko AS., Panfilova AL., Podgaina MV., Zaytzeva YL.,

# Balynska MV.

Pharmacoeconomic Assessment of the Application of Dornase Alfa in the Treatment of Lung Generation in Patients with Cystic Fibrosis *Asian Journal of Pharmaceutics 2018; 12:* 

# Ratjen F., Klingel M., Black P., Powers MR., Grasemann H., Solomon M., Sagel SD., Donaldson SH., Rowe SM., Rosenfeld M.

Changes in Lung Clearance Index in Preschool-aged Patients with Cystic Fibrosis Treated with Ivacaftor (GOAL): A Clinical Trial American Journal of Respiratory and Critical Care Medicine 2018; 198: 526 - 528

# Robinson E., MacDonald KD., Slaughter K., McKinney M., Patel S., Sun C., Sahay G.

Lipid Nanoparticle-Delivered Chemically Modified mRNA Restores Chloride Secretion in Cystic Fibrosis

Molecular Therapy 2018; 26: 2034 - 2046

# Rosenfeld M., Wainwright CE., Higgins M., Wang LT., Mckee C.,

**Campbell D., Tian S., Schneider J., Cunningham S., Davies JC.** Ivacaftor treatment of cystic fibrosis in children aged 12 to < 24 months and with a CFTR gating mutation (ARRIVAL): a phase 3 single-arm study

Lancet Respiratory Medicine 2018; 6: 545 - 553

# Rubin BK.

Unmet needs in cystic fibrosis Expert Opinion on Biological Therapy 2018; 18:

## Segall M.

DEADLOCK OVER CYSTIC FIBROSIS DRUG Allocating healthcare resources-seriously ill people should have priority *British Medical Journal 2018; 361: ArtNo: k1817* 

# Shah GB., De Keyzer L., Russell JA., Halderman A.

Treatment of chronic rhinosinusitis with dornase alfa in patients with cystic fibrosis: a systematic review

International Forum of Allergy & Rhinology 2018; 8: 729 - 736

# Strug LJ., Stephenson AL., Panjwani N., Harris A.

Recent advances in developing therapeutics for cystic fibrosis Human Molecular Genetics 2018; 27: R173 - R186

# Tosco A., Villella VR., Castaldo A., Kroemer G., Maiuri L., Raia V.

Repurposing therapies for the personalised treatment of cystic fibrosis Expert Opinion on Orphan Drugs 2018; 6: 361 - 373

### Van Biervliet S., Hauser B., Verhulst S., Stepman H., Delanghe J., Warzee JP., Pot B., Vandewiele T., Wilschanski M.

Probiotics in cystic fibrosis patients: A double blind crossover placebo controlled study Pilot study from the ESPGHAN Working Group on Pancreas/CF

Clinical Nutrition Espen 2018; 27: 59 - 65

### Vasudevan N., Sharma MK., Reddy DS., Kulkarni AA. A multi-step continuous flow synthesis of the cystic fibrosis medicine ivacaftor

Reaction Chemistry & Engineering 2018; 3: 520 - 526

# Transplantation

# Borchi B., Ocampo MB., Cimino G., Pizzamiglio G., Bresci S., Braggion C.

Mortality rate of patients with cystic fibrosis on the waiting list and within one year after lung transplantation: a survey of Italian CF centers

Italian Journal of Pediatrics 2018; 44: ArtNo: 72

# Ho C., Hayes D., Khosravi M., Splaingard ML., Tumin D., Lloyd EA.

Sedation with Propofol for Bronchoscopy in Cystic Fibrosis Lung Transplant Recipients Lung 2018; 196: 435 - 439

# Jardel S., Reynaud Q., Durieu I.

Long-term extrapulmonary comorbidities after lung transplantation in cystic fibrosis: Update of specificities *Clinical Transplantation 2018; 32: 6:e13269* 

## Jauregui A., Deu M., Romero L., Roman A., Moreno A., Armengol M., Sole J.

Lung Transplantation in Cystic Fibrosis and the Impact of Extracorporeal Circulation Archivos de Bronconeumologia 2018; 54: 313 - 319

# Kounis I., Levy P., Rebours V.

Ivacaftor CFTR Potentiator Therapy is Efficient for Pancreatic Manifestations in Cystic Fibrosis

American Journal of Gastroenterology 2018; 113: 1058 - 1059

### Orfanos S., Gomez C., Baron S., Akkisetty R., Dufeu N., Coltey B., Thomas PA., Rolain JM., Reynaud-Gaubert M.

Impact of gram negative bacteria airway recolonization on the occurrence of chronic lung allograft dysfunction after lung transplantation in a population of cystic fibrosis patients *BMC Microbiology 2018; 18: ArtNo: 88* 

## Saldanha IJ., Akinyede O., Robinson KA.

Immunosuppressive drug therapy for preventing rejection following lung transplantation in cystic fibrosis

Cochrane Database of Systematic Reviews 2018; : 6:CD009421

### Staufer K., Halilbasic E., Hillebrand P., Harm S., Schwarz S., Jaksch P., Kivaranovic D., Klepetko W., Trauner M., Kazemi-Shirazi L.

Impact of nutritional status on pulmonary function after lung transplantation for cystic fibrosis United European Gastroenterology Journal 2018; 6: 1049 - 1055

# Urology

### Nowakowski ACH.

Cystic Fibrosis Kidney Disease: 10 Tips for Clinicians Frontiers in Medicine 2018; 5: ArtNo: 242