Contact

www.linkedin.com/in/geoffrey-stephens-ph-d-13863b33 (LinkedIn)
aicella.io (Company)

Top Skills

Immunology
Autoimmune Diseases
inflammation

Certifications

Six Sigma Tools for Improve and Control
Regression Models
Reproducible Research
The Data Scientist's Toolbox

Publications

Modulation of Treg cells/T effector function by GITR signaling is context-dependent.
Engagement of glucocorticoid-induced TNFR family-related receptor on effector T cells by its ligand mediates resistance to suppression by CD4+CD25+ T cells.
The GITR-GITRL interaction: co-stimulation or contrasuppression of regulatory activity?
The lifestyle of naturally occurring CD4+ CD25+ Foxp3+ regulatory T cells.
TNF downmodulates the function of human CD4+CD25hi T-regulatory cells.

Patents

Method of treating or ameliorating an immune cell associated pathology using GITR ligand antibodies

Geoffrey Stephens, Ph.D.

Founder & CEO
Escondido, California, United States

Summary

Geoffrey Stephens is an experienced Ph.D. scientific executive with 20+ years working in all aspects of large and small biotechnology companies. Skilled in large and small molecules, drug development, molecular biology, biotechnology, cell culture, and bioinformatics. Demonstrated record in driving complicated projects to IND in autoimmune and oncology spaces. Strong scientific background with early training at the NIH/NIAID.
Extensive experience supervising groups of laboratory professionals in immunology-based experimentation, process development, and sophisticated data-mining for uncovering unique patterns in data. Previous experience includes regulatory T cells, CAR-T, TCR-T, large and small molecule therapeutics for cancer, autoimmunity, and inflammatory diseases.
Dr. Stephens led teams discovering biologics across all stages of development while he was at AstraZeneca (AZ)/MedImmune. During his tenure there, he identified several targets that were ultimately developed to various stages in the AZ pipeline for the treatment of autoimmune/inflammatory diseases. Dr. Stephens also played an integral role in the development and eventual FDA approval of Benralizamab (Fasenra), an anti-IL-5Ra specific antibody for the treatment of asthma. More recently, he was the Head of Process Development at Tessa Therapeutics developing CD30-CAR-T cell therapies for the treatment of Hodgkin and non-Hodgkin lymphoma, which received RMAT and PRIME designations from the FDA and EMA, respectively. Prior to that, Dr. Stephens was the Director of Product Science at Immatics, LLC, where he led the development of TCR-T cell-based therapies for the treatment of a variety of cancers. Geoffrey also co-founded and was the Chief Scientific Officer of Cellcion, LLC, a company devoted to the development of software platforms for the analysis of complex immunological systems.

Experience

AiCella

Founder & CEO

November 2023 - Present (6 months)

San Diego, California, United States

Cellcion LLC™

1 year

CEO & Founder

November 2023 - December 2023 (2 months)

Chief Executive Officer and Founder

March 2023 - December 2023 (10 months)

La Jolla Shores, California, United States

Consultant for drug discovery, drug development, and cell therapies

January 2023 - December 2023 (1 year)

Escondido, California, United States

Exagen Inc.

Associate Vice President of R&D

July 2021 - December 2022 (1 year 6 months)

San Diego Metropolitan Area

- Drive the pre-clinical diagnostics pipeline for SLE, RA, and fibromyalgia using both internal research and in-licensed assets.
- Used combinations of “omics” and AI tools to develop algorithms to identify subsets of patients within specific disease areas that are likely to respond to therapy (Work on fibromyalgia was chosen for and poster presentation at ACR Convergence 2022: Abstract No. 2233. Machine Learning Uncovers Novel mRNAs Expressed in Fibromyalgia
- Conceived and developed a novel diagnostic approach that leveraged AI to identify SLE patients at high risk for kidney disease with high specificity/ sensitivity to obviate the need for a kidney biopsy
- Collaborate with pharma and academic partners to apply new diagnostic approaches to design more predictive endpoints for clinical trials
- Develops new assay and platform application pipeline to expand the menu of the existing platforms and open new applications of the base technology.
- Provides leadership, mentoring, and development of internal scientific team and ensures team has appropriate skills, capabilities, and resources to meet current and future business needs
- Works collaboratively with peers on the leadership team to drive value creation for the company and advance key initiatives

• Represent the company in various scenarios including potential and current external collaborators, scientific advisory boards, and key scientific meetings
• Ensures compliance of product development with regulatory requirements
• Develops other operating mechanisms and processes to ensure effective communications and operations within R&D and with other functional areas
• Prepares and makes presentations and contributes to manuscripts
• Work led to 3 patent filings for novel diagnostic approaches in fibromyalgia, lupus nephritis, and SLE

Tessa Therapeutics Ltd
Head of Process Development
May 2019 - March 2021 (1 year 11 months)
Houston, Texas Area

• Lead the development and optimization of closed process manufacturing of T cell therapies for the treatment of various cancers
• Coordinate the development, optimization, comparability, and tech transfer activities for viral vectors
generated by different sites and contract manufacturers
• Plan and manage strategy for process design, optimization, scale-up, technology transfer and
process troubleshooting for Tessa's pre-clinical and early phase clinical cell therapy products
• Provide scientific and technical leadership for pre-clinical projects and projects in clinical
development
• Ensure that overall process development, technology transfer, optimization and product
manufacture is in compliance with Food and Drug Administration (FDA) guidelines
• Responsible for the successful tech transfer and troubleshooting of early phase process and
analytics from academic partners or internal programs
• Oversee the design and scale-up processes, instruments and equipment used to perform the
process development and manufacturing functions.
• Reviewing technical data from clinical production batches as part of the ongoing product
development activity to support regulatory filings. In addition, providing technical expertise to assist in
trouble shooting issues during technical transfer or routine production.

• Hire, manage, and train staff
• Plan and assign projects to meet departmental and organizational objectives
• Provide guidance and direction to staff; establishing expectations, define roles, support career
development and managing performance
• Lead the development and optimization of closed process manufacturing for allogeneic and autologous T cell therapies
• Provide guidance and direction to staff; establishing expectations, define roles, support career
development and managing performance
• Develop the operations budget including capital requirements

Immatics Biotechnologies
Director of Product Science
November 2017 - January 2019 (1 year 3 months)
Houston, Texas Area

• Responsible for leading a group of scientists involved in the process development and manufacturing of products for T cell-based therapeutics for adoptive transfer into patients
• Key contributor to the implementation of clinical strategies and assays aimed to identify patients who may best respond to drug products
• Identify and document assays for post-hoc exploratory research to better understand useful, practical clinical readouts in Phase II and beyond
• Establishment of QC measurements for in-process and final release of patient T cell products
• Oversee compliance with GMP/GLP requirements during process development, in-process analysis, and final release
• Key contributor in the drafting of documents (investigator's brochures, clinical study protocols, investigational new drug applications) required for successful FDA submissions
• Development of assays to determine patient responses to products
• Frequent interactions with upper management in key go/no-go meeting for pipeline projects
• Day to day oversight, mentoring, and career development of a group of seven scientists from the associate to senior scientist level

Cellcion, LLC
Chief Scientific Officer
August 2016 - September 2017 (1 year 2 months)
Clarksburg, MD

Responsibilities:

• Established a company devoted to objective analysis of flow cytometry data using an automated, statistics-based approach

• Spearheaded all team activities, including business development, and overall corporate strategy

• Established a unique "omics" driven data analysis platform integrating single cell analysis data with other "omics" platforms (proteomic, RNAseq, and genome)

• Coordinated the development of core development strategy for the company

• Responsible for generation of an interface for the analysis of flow cytometric data and generation of statistical analyses integrating other data types from clinical trials

• Performed comprehensive analysis of data to identify biomarkers correlated with drug response (anifrolumab, anti-type I interferon receptor) in a complex, multiple time point set of patient data samples using a variety of computational approaches (manuscript in preparation).

•Supervision of 13 employees involved in various aspects of commercial, design, and spearheading scientific data mining

MedImmune

9 years 1 month

Senior Scientist

August 2007 - August 2016 (9 years 1 month)

Gaithersburg, MD

Respiratory, Inflammation, and Autoimmune Diseases Research

Responsibilities:

• Significant contributor to the oncology therapeutic area

• Oversight of the phenotyping of tumor infiltrates from tumor samples using custom flow cytometry panels measuring:

- CD4 and CD8 activation status
- Exhausted T cell phenotypes (e.g. PD-1, TIM3, LAG-3)
- B, T, NK, monocytes, DCs, platelets, eosinophils, and basophils

• Directed the use of the NSG mouse model to screen the efficacy of various antibody combinations in vivo for further evaluation

• Designed and oversaw implementation of ADCC assays to assess killing of tumor antigen expressing target cells using cell lines and PBMCs.

• Participated in the development of antigen internalization assays for screening of antigen-specific antibody drug conjugates against tumor and immune cells

• Supervised the validation of hundreds of novel T cell targets identified by novel cell surface screening techniques and by transcriptional analysis of material derived from differentiated T cell subsets
• Oversaw the generation of targeted bi-specific antibodies specific for tumor and other antigens of immunological interest expressed by T cells or potential cell types
• Oversaw the evaluation of several different antibodies for developability/ manufacturability
• Supervised the functional screening of bi-specific antibodies for the purposes of discovering high-affinity, highly-specific, T cell agonists and antagonists.
• Supervision of three Ph.D. and three M.Sc. level scientists

Responsible for oversight of four autoimmunity pipeline programs

Further validate novel targets using human and mouse in vitro assays, lentvirial over-expression and siRNA knock-down of target genes in vivo, and oversee generation of mouse knock-in/knock-out models

Present key findings for upper management and at project team meetings

Publish findings in high impact journals and present at international conferences

Scientist II
August 2008 - April 2012 (3 years 9 months)
Gaithersburg, MD

Provide experimental support for late stage asthma programs in clinical development

Design and execute experiments to provide key information regarding the mechanism of action of lead compounds in development

Scientist I
August 2007 - August 2008 (1 year 1 month)
Gaithersburg, MD

Provide experimental support for late stage asthma programs in clinical development

Design and execute experiments to provide key information regarding the mechanism of action of lead compound in development

National Institutes of Health

Postdoctoral Fellow

January 2003 - August 2007 (4 years 8 months)

Design, plan, and independently execute experiments utilizing in vitro and in vivo models

Participate in the care, husbandry, and manipulation of various experimental mouse strains

Teach and supervise students and junior colleagues; report results in peer-reviewed journals;

Review manuscripts submitted for publication, communicate data in oral or poster formats at scientific meetings

Georgia Health Sciences University

5 years 4 months

Research Assistant

September 1997 - November 2002 (5 years 3 months)

Generation and characterization of transgenic mouse models

Investigate mechanisms underlying the selection of thymus-derived regulatory T cells

Mentor

August 1997 - November 2002 (5 years 4 months)

Oversaw the development of graduate students.

Education

Georgia Health Sciences University

Ph.D, Molecular Medicine · (1997 - 2002)

Georgia Institute of Technology

Bachelor of Applied Science - BASc, Biology/Biological Sciences, General · (September 1992 - January 1997)

Georgia Institute of Technology

Bachelor of Science - BS, Applied Biology · (1992 - 1997)