Response to Correspondence ALL-2023-01107 "Short-course subcutaneous treatment with PQ Grass strongly improves symptom and medication scores in grass allergy"

Pieter-Jan de Kam[1], Stefan Zielen[2], Jonathan Bernstein[3], Uwe E. Berger MBA[4], Markus Berger[5], M. Cuevas[6], D. Cypcar[7], A. Fuhr-Horst[8], W.A. Greisner[9], M. Jandl[10], Sabine Lassmann[11], Margitta Worm[12], Jonathan Matz[13], E. Sher[14], C. Smith[15], G.C. Steven[16], Ralph Mosges[17], Mohamed Shamji[18], L. Du Buske[19], F. Borghese[1], K. Oluwayi[1], Thomas Zwingers[1], M. Seybold[1], Oliver Armfield[1], Matthew Heath[1], Simon Hewings[1], Matthias Kramer[1], and Murray Skinner[1]

[1]Allergy Therapeutics Plc
[2]Goethe-Universitat Frankfurt am Main Sinologie
[3]Sanford C Bernstein and Co LLC
[4]Medical University Vienna
[5]Hospital Hietzing Department of Otorhinolaryngology
[6]Universitatsklinikum Carl Gustav Carus
[7]Allergy Partners PA
[8]Universitatsklinikum Essen Institut fur Humangenetik
[9]Bluegrass Care Navigators
[10]Institut fur Therapieforschung
[11]Studienzentrum Dr Sabine Laßmann Saalfeld Germany
[12]Charite Universitatsmedizin Berlin Institut fur Biochemie Campus Mitte
[13]Inc White Marsh
[14]Allergy Partners of New Jersey
[15]Certified Research Associates
[16]Allergy and Asthma Centers
[17]IMSB (Institute of Computational Biology and Medical Statistics) University at Cologne
[18]Imperial College London National Heart and Lung Institute
[19]University of Washington Division of Allergy & Infectious Diseases

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1. Allergy Therapeutics plc, Worthing, United Kingdom

2. Children and Adolescents Dept., Allergology, Pulmonology & Cystic fibrosis, Goethe University, Frankfurt, Germany
3. Bernstein Clinical Research Center, LLC, Cincinnati, OH, United States of America
4. Aerobiology and Pollen Research Unit, Dept. Oto-Rhino-Laryngology, Medical University Vienna, Vienna, Austria.
5. Wiener Gesundheitsverbund, Hospital Hietzing, Department of Otorhinolaryngology, Vienna, Austria
6. Clinic and Polyclinic of Otorhinolaryngology, University Clinic Carl Gustav Carus, TU Dresden, Germany
7. Allergy Partners of Western North Carolina, Asheville, NC, United States of America
8. ENT Research- Institut für klinische Studien, Essen, Germany
9. Bluegrass Allergy Research, Lexington, KY, United States of America
10. Hamburger Institut für Therapieforschung GmbH, Hamburg, Germany
11. Studienzentrum Dr. Sabine Laßmann, Saalfeld, Germany
12. Universitätsmedizin Berlin, Department of Dermatology and Allergy - Charite Campus Mitte, Berlin, Germany
13. Chesapeake Clinical Research, Inc. White Marsh, MD, United States of America
14. Allergy Partners of New Jersey, Ocean, NJ, United States of America
15. Certified Research Associates, Cortland, NY, United States of America
16. Allergy Asthma & Sinus Center, S.C., Greenfield, WI, United States of America
17. IMSB (Institute of Computational Biology and Medical Statistics), University at Cologne, Cologne, Germany
18. ClinCompetence, Cologne, Germany
19. Immunomodulation and Tolerance Group, Allergy and Clinical Immunology, Department of National Heart and Lung Institute, Imperial College London, London, United Kingdom
20. Asthma UK Centre in Allergic Mechanisms of Asthma, Imperial College London, London, United Kingdom
21. Division of Allergy and Immunology, Department of Internal Medicine, George Washington University Hospital, Washington, DC, United States of America

Author Correspondence

e-mail: pieter-jan.dekam@allergytherapeutics.com

tel: +44(0)7825437807

Competing Interest Statement

M.H. Shamji reports research grants from Immune Tolerance Network, Medical Research Council, Allergy-Therapeutics, LETI Laboratorios, and Rovolo Biotherapeutics, lecture fees from Allergy Therapeutics and LETI Laboratorios, all outside the submitted work. L. DeBuske is a Consultant for Allergy Therapeutics and a Consultant and/or Speakers Bureau for GSK, Sanofi, Regeneron, Astra Zeneca and ALK-Abello. S. Zielen, J.A. Bernstein, M. Cuevas, D. Cypcar, A. Fuhr-Horst, W.A. Greisner, M. Jandl, S. Laßmann, M. Worm, J. Matz, E. Sher, C. Smith, G.C. Steven are principle investigators of this studies and received payments from Allergy Therapeutics. U. Berger, M. Berger, R. Mösges received payments from Allergy Therapeutics for their vendor services. P.J. de Kam, F. Borghese, K. Oluwayi, T. Zwingers, M. Seybold, O. Armfield, M.D. Heath, S.J. Hewings, M.F. Kramer, M.A. Skinner are employees from Allergy Therapeutics.

ORCID ID

Pieter Jan de Kam https://orcid.org/0000-0003-0859-4862

J.A. Bernstein https://orcid.org/0000-0002-3476-1196

U. Berger https://orcid.org/0000-0002-9265-2131

M. Berger https://orcid.org/0000-0001-8297-4412

M. Worm https://orcid.org/0000-0002-3449-1245

J. Matz https://orcid.org/0000-0002-3242-7979

E. Sher https://orcid.org/0009-0000-5524-7375

R. Möges https://orcid.org/0000-0002-1928-810X

M.H. Shamji https://orcid.org/0000-0003-3425-3463

L. DeBuske https://orcid.org/0000-0001-5013-8022

K. Oluwayi https://orcid.org/0009-0000-6832-7753

M.D. Heath https://orcid.org/0000-0002-6095-4098

M.F. Kramer https://orcid.org/0000-0002-3740-4733

M.A. Skinner https://orcid.org/0009-0008-4935-4316

This randomized, double-blind, placebo-controlled study was designed to evaluate the short-term efficacy of pre-seasonal subcutaneous administration of PQ Grass compared to placebo during a single grass pollen season. Separate long-term Phase III studies are being planned to evaluate the long-term efficacy and safety of PQ Grass, as it is generally accepted that the evaluation of a sustained efficacy response requires three years of AIT treatment. During this study, the safety and tolerability of PQ Grass was defined as a secondary endpoint and was extensively evaluated during the study and included safety follow-up up to 6 months after the last dose for all study participants. This aligns with general regulatory requirements for the duration of safety follow-up in short-term AIT studies. This study also applied an intensive evaluation of solicited adverse events using a detailed questionnaire after administering each subcutaneous injection. In addition, subjects remained at the clinical sites for a minimum of 30 minutes after each dose to evaluate the occurrence of any local and systemic AEs.

Furthermore, a telephone safety call was performed approximately 24 hours, 4 and 7 days after each injection to inquire about any adverse events using a telephone script. Finally, safety was assessed three and six months following the last injection. These intensive safety monitoring procedures applied in the study have contributed to relative high reported incidences of adverse events for both the active and placebo treatment groups.

Furthermore, an extensive panel of molecular, cellular and humoral biomarkers was evaluated as a part of exploratory efficacy endpoints analysis in order to understand underlying immunological mechanisms and their relationship to the administered PQ grass allergen immunotherapy (AIT). A summary of the main findings related to the molecular mechanism induced by PQ Grass AIT are presented in the peer-reviewed manuscript "Peripheral blood mononuclear cell transcriptome profile in a clinical trial with subcutaneous, grass pollen allergoid immunotherapy" recently accepted for publication in Clinical and Experimental Allergy [1]. Furthermore, as part of this study, a comprehensive biomarker analyses was performed evaluating the cellular and humoral effects of PQ Grass conventional and extended regimens vs placebo. A manuscript summarizing these extensive biomarker findings is being finalized and will be published shortly in a peer-reviewed journal.

References

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