

Pulmocide Ltd

Dr Pete Strong
Co-founder & CSO

Respiratory Innovation Summit
Dallas 2019

Pulmocide Ltd.: Company Overview

Management

Experienced Management with extensive track record in respiratory and infectious disease

- **Garth Rapeport***, CEO; Visiting Professor, NH&LI, Imperial College; *Respivert, Topivert, GSK*
- **Pete Strong***, CSO; *Respivert, Topivert, GSK*
- **Kaz Ito***, Director of Biology; Visiting Professor, NH&LI; *Respivert*
- **Alison Murray**, CMO; *GSK, Roche Molecular Systems, Gilead Sciences*
- **Lindsey Cass**, Early Clinical Development; *Respivert, GSK*
- **Amanda Davis**, Director Project Management; *Respivert, GSK*

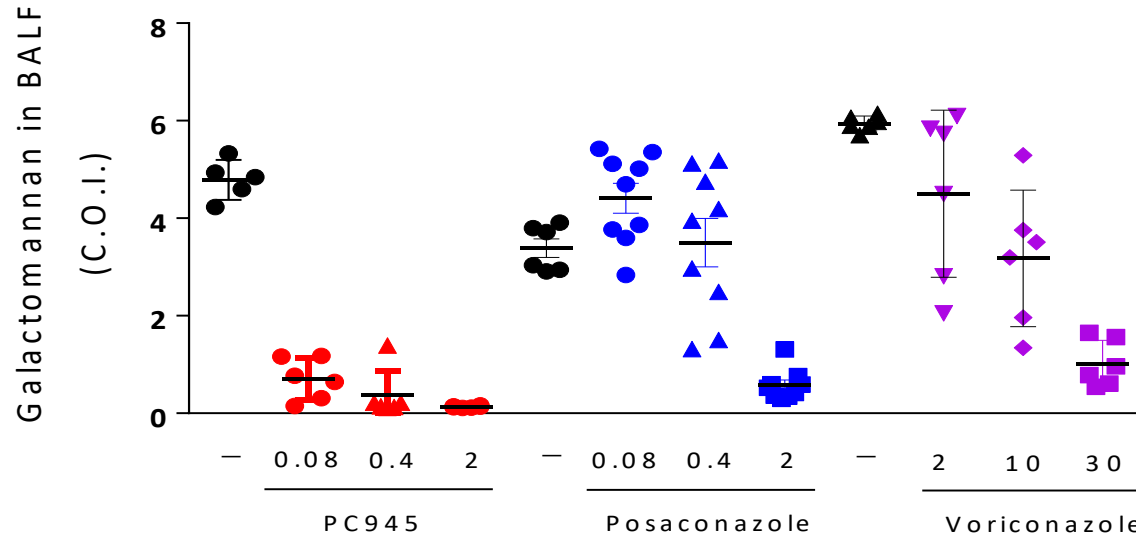
Investors

Top Tier Investor syndicate

- Series A, £17m raised November 2013 + series A extension (£3m)
- Series B, £25m raised March 2017
- SR one
- SV Life Sciences
- Johnson & Johnson Innovation
- F-Prime
- Touchstone Innovations (now IP Group)
- Longwood Fund

Clinical Stage Product PC945

First in class, novel inhaled drug for Aspergillus infections



Compounds were treated intranasally on Day 0, 1, 2 and 3 post *A.fumigatus* conidia inoculation, and GM were measured on Day3.

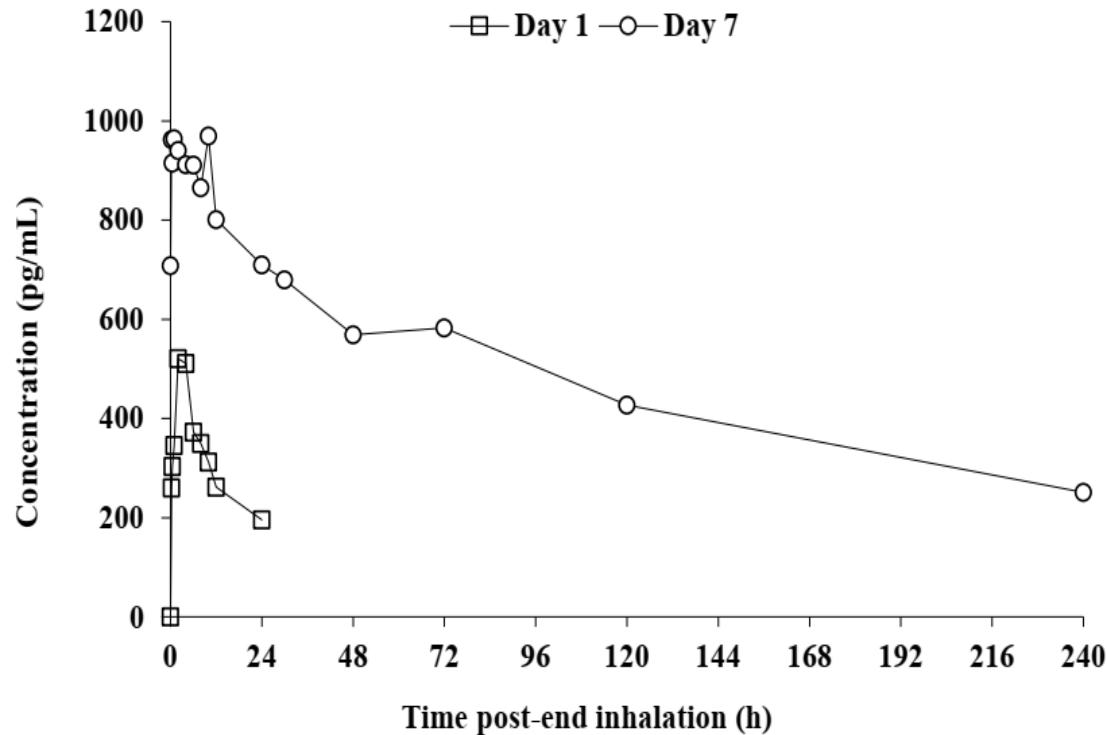
ID ₅₀ : µg/kg, in	PC945	Voriconazole	Posaconazole
GM (serum)	<67	3235	393
GM(BALF)	<67	9627	1026
CFU (Lung)	71	5887	205

- Novel compound (granted US patent).
- Broad antifungal activity (candida, *Rhizopus* spp. and pan-azole resistant *Aspergillus*; L98H; Colley et al., 2017).
- Bespoke profile: nanomolar potency; low dose, prolonged lung half-life.
 - Negligible oral absorption.
- Excellent activity in immunosuppressed mice in vivo (Kimura et al., 2017).

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- Phase I complete in HVT and asthmatics – excellent safety with low plasma concentrations (1-2ng/ml).
- Potential for 3 presentations; nebulised, dry-powder and intra-nasal (chronic rhino-sinusitis).



Following single doses, absorption into the systemic circulation is slow and sustained, consistent with prolonged lung retention.

Systemic exposure gradually accumulates with a 2-3 fold increase in AUC 0-24h observed following 7 days of daily dosing.

Mean plasma concentrations (pg/ml) of PC945 following single and repeated daily inhaled 5mg doses for 7 days in healthy subjects

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- Lung transplant – Special Needs program has demonstrated fungal clearance in patients with life-threatening Aspergillus tracheobronchitis.

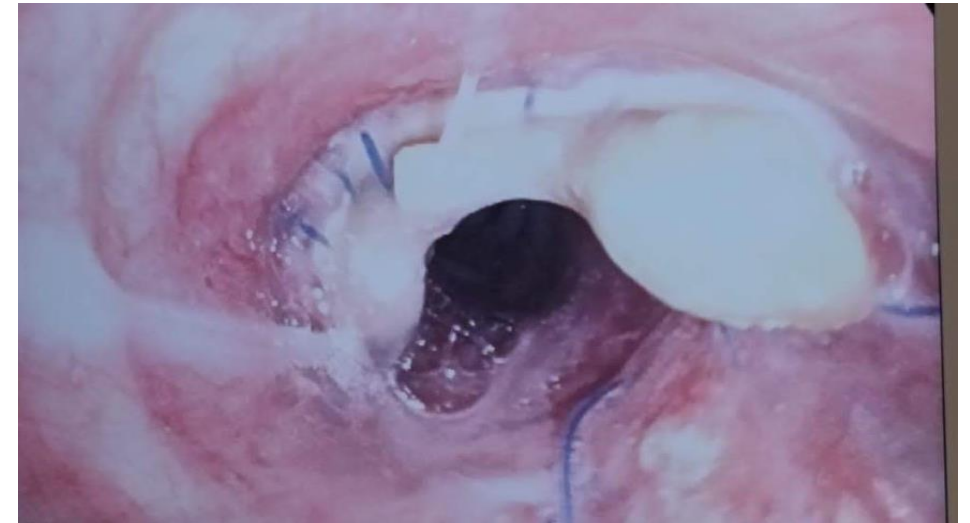
Patient 1: a 29 year old female who underwent dual lung transplant at Harefield Hospital, London in September 2018.

Post operatively she developed Aspergillus infection at the anastomosis site. Azole sensitive *A fumigatus* was isolated on 5th Oct 2018.

Isavuconazole and inhaled amphotericin B were started but due to intolerance switched to posaconazole one week later.. Inhaled amphotericin B was stopped due to intolerance and terbinafine was added.

Bronchoscopy after 6 weeks treatment showed worsening of the fungal ball attached to the sutures and endobronchial lining.

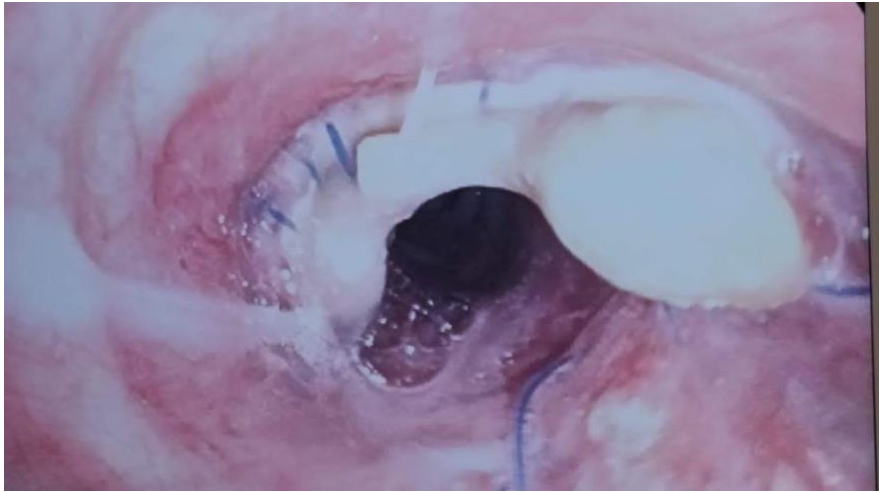
PC945 treatment initiated December 18th.



- The fungal mass is completely entwined in the anastomotic sutures and partially occluded airway
- Biopsy confirms fungal hyphae

Clinical Stage Product PC945

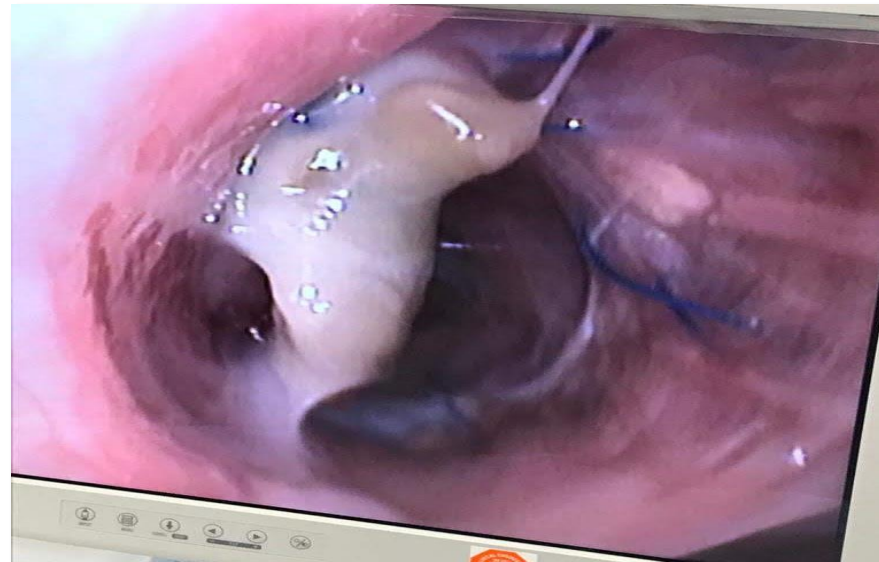
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December 18th:
Initiate 5mg
PC945 daily



February 12th review:
Dramatic response evident



Jan 2nd review:
Patient tolerating
drug well

Clinical Stage Product PC945

First in class, novel inhaled drug for Aspergillus infections

- Lung function improved on PC945 and the patient felt better;
 - Plasma concentrations were found to be in-line with expectations..

N. Pagani *et al.*, PC945, a novel inhaled azole for treatment of fungal tracheobronchitis post-lung transplantation: a case report. 2019, *Journal of Fungi*, Fungal Update 2019 abstract 15.

- Patient follow-up continuing.
- A total of 5 lung transplant patients have now been dosed in the programme,
 - No interactions detected with concomitant medication
 - Collecting and ordering CT scans to look for evidence of benefit in (parenchymal) lung tissue.
- P2 studies on-going in lung transplant, asthma and cystic fibrosis.

Finally, my thanks to all of my colleagues whose contributions made the discovery of PC945 possible and to the organisers of today's meeting:

Respiratory Innovation Summit, Dallas 2019