IMAGE 1

Immune Modulation And Gemcitabine Evaluation

IMM-101 Extends Survival and Maintains Quality of Life in IMAGE 1, a Randomised, Open-Label, Phase 2 Trial Comparing Gemcitabine with and without IMM-101 in Advanced Pancreatic Cancer

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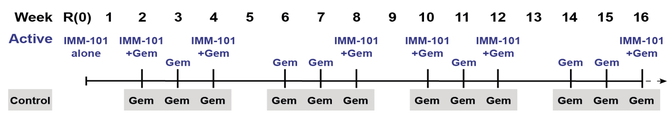
Background

- **Pancreatic Cancer - Goals of Patients and Caregivers**
  - Maintain quality of life (QoL)
  - Extend survival
  - Manage symptoms
- **IMM-101**
  - Suspension of heat-killed Mycobacterium obuense (NCTC 13365)
  - Systemic immunomodulator administered by intradermal injection
  - Induces CD8+ T cell responses, reduces metastatic burden in mouse models
- **IMAGE 1**
  - Clinically significant increases in OS and PFS
  - Survival curve shape characteristic of immunotherapy
  - No incremental toxicity or immune-related toxicities

Methods

Treatment: Patients randomly assigned in a 2:1 ratio to receive IMM-101 by intradermal injection (0.1mL, 10mg/mL) + Gem (1000mg/m²) or Gem alone



Study duration

- 12 cycle maximum
- Completing patients eligible for follow-up sub study

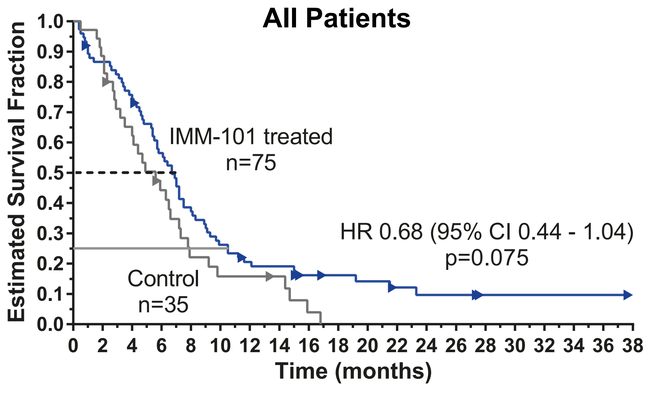
Population

- 110 patients with inoperable pancreatic cancer
- WHO performance status 0-2
- > 18 years (66% ≥ 65)
- Randomised at 20 sites in Spain, UK, Italy, Cyprus and Ireland

Patient Characteristics

		IMM-101 treated	Control
Age (years)	Median (range)	68 (45 - 88)	66 (53-83)
Age < 65	%	33	34
Age ≥ 65	%	67	66
Gender	Male %	51	60
WHO performance status 0-1	%	83	91
WHO performance status 2	%	17	9
Time since diagnosis (months)	Median (range)	1.2 (0.1 – 6.9)	0.8 (0.1 – 3.9)
Completed study (12 cycles)	n (%)	12 (16)	1 (3)

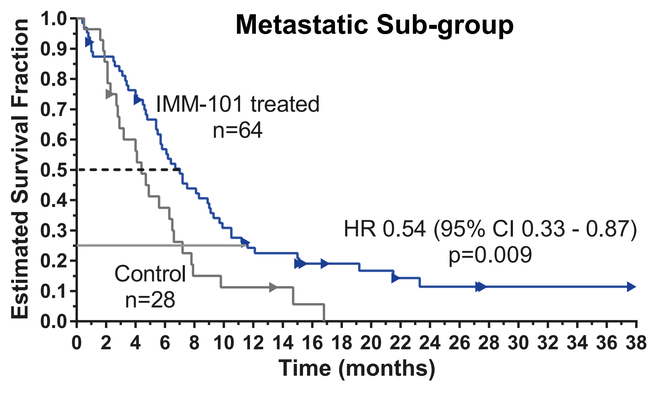
Overall Survival
Kaplan–Meier Curves for ITT population



Overall Survival
and Progression Free Survival

	Median OS (months)		Median PFS (months)	
	ITT All	ITT Metastatic	ITT All	ITT Metastatic
IMM-101 Treated	6.7	7.0	4.1	4.4
Control	5.6	4.4	2.4	2.3
% increase	20%	59%	71%	91%
Log rank p value	0.072	0.009	0.016	0.001

Overall Survival
Kaplan–Meier Curves for ITT population



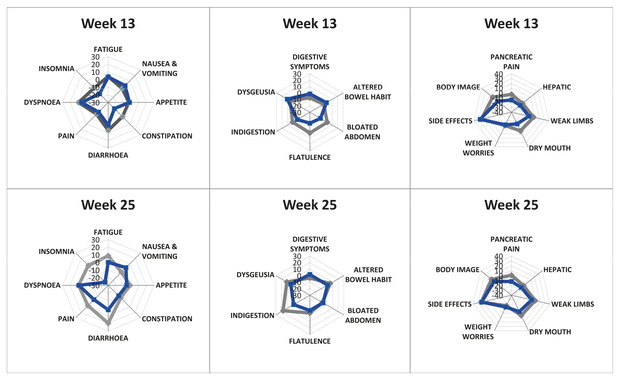
Safety and Exposure Summary

	IMM-101 Treated (n=74)	Control (n=35)
Total number of AEs	1264	477
Mean time on study	5·52 months	3·80 months
AEs per month on study	3·05	3·59
Mean exposure to gemcitabine	118·7 days	90·5 days
AEs per month of gemcitabine	**4·37**	**4·59**

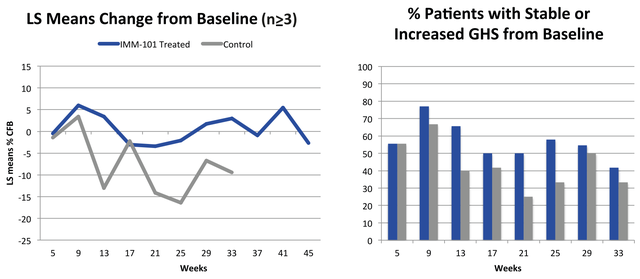
Safety - Grade 3 and Higher Adverse Events
(≥ 5%incidence in either group, to 12 cycles)

Adverse Event (preferred term)	IMM-101 treated n (%)	Control n (%)	Incidence Rate Difference (IMM-101treated – Control)
Asthenia	8 (11)	1 (3)	8%
Abdominal Pain	6 (8)	1 (3)	5%
Vomiting	4 (5)	0	5%
Anemia	6 (8)	1 (3)	5%
Biliary sepsis	4 (5)	0	5%
Bile duct obstruction	4 (5)	1 (3)	2%
Neutropenia and/or neutrophil count decreased	13 (18)	6 (17)	1%
Leukopenia and/or WBC count decreased	3 (4)	4 (11)	-7%
Hypokalemia and/or blood potassium decreased	0	2 (6)	-6%
Fatigue	4 (5)	4 (11)	-6%
Urinary tract infection	1 (1)	2 (6)	-5%
Disease Progression	3 (4)	3 (9)	-5%
Thrombocytopenia and/or platelet count decreased	5 (7)	3 (9)	-2%
ALT increased	3 (4)	2 (6)	-2%

C30 and PAN26 Symptom Radar Plots
at 3 and 6 Months



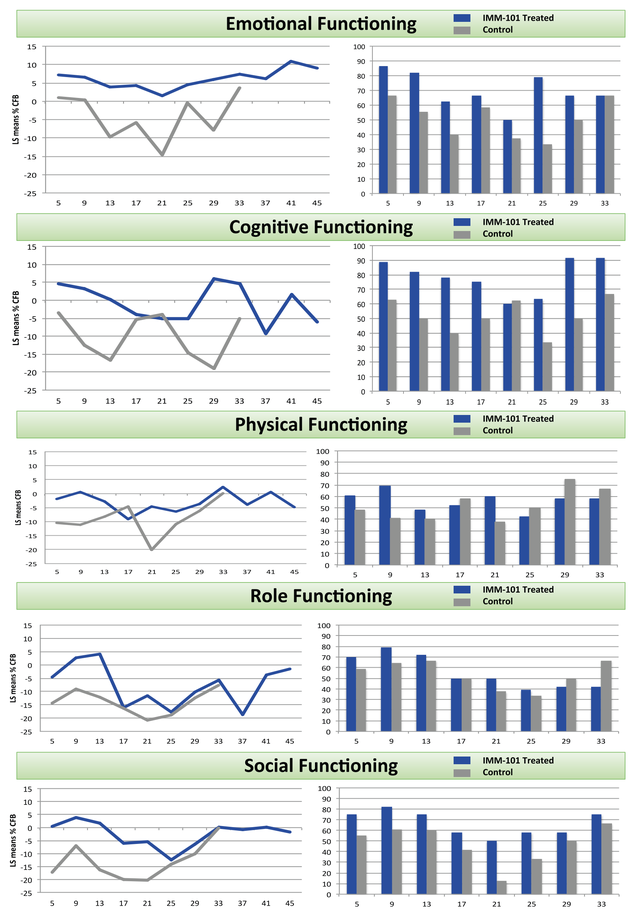
Quality of Life
QLQ-C30 Global Health Status



IMM-101 Treated	45	39	32	24	20	19	11	12	10	10	9
Control	27	18	15	12	8	6	4	3	2	1	1

Number of patients completing QLQ-C30 Global Health Status

QLQ-C30 Functional Scales
LS Means (n≥3) and % with Stable or Improved Scores



Conclusions

- Clinically meaningful extension of OS in IMM-101 treated patients with metastatic disease demonstrated.
- Similar incidence of grade 3 and higher adverse events in the two treatment groups indicates that IMM-101 confers no additional burden of adverse events to patients above that relating to chemotherapy or the underlying disease.
- Quality of life maintained with indications of improvements in some scores. A higher incidence of patients with stable or improved scores in global health, cognitive, social and emotional functioning was recorded at nearly all visits.

Discussion

- Survival extension, durable responses, a favourable safety profile and indications of positive effects on quality of life mean this proof-of-concept study has exceeded its objectives.
- First positive study of an immunotherapy/chemotherapy combination given first-line in PDAC.
- Further evaluation of IMM-101 in metastatic PDAC and other cancers is warranted.
- Combination of IMM-101 with additional immunotherapies such as a checkpoint inhibitor is logical and also of interest.

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