HEALTHCARE SECTOR

20 July 2016

IMMUPHARMA PLC

CORPORATE

A potential blockbuster

35p[#]

Year-end December	2014A	2015A	2016E	2017E
Revenue (risk-adjusted)	0.2	0.1	-	-
EBITDA (£m)	(3.3)	(4.4)	(6.5)	(4.8)
Adj. Pre-tax Profit (£m)	(3.3)	(4.5)	(6.6)	(4.9)
Adj. EPS (p)	(3.4)	(4.4)	(4.2)	(3.4)
Net Cash/(Debt) (£m)	4.6	0.4	2.3	0.2

SOURCE: Northland Capital Partners Limited estimates [#]**Priced at market close, 19 July 2016**

Key data	
Rating (12 month)	BUY
Price Target	171p
Ticker	IMM.L
Shares in issue	122m
Market cap	£42m

*Northland Capital Partners Limited is the Broker to ImmuPharma plc and therefore this information should be viewed as a Marketing Communication.

ImmuPharma plc is grossly undervalued. The company's flagship drug, Lupuzor—a potential treatment for Lupus—is currently completing a Phase 3 clinical trial which is expected to read-out top line results before the end of 2017. The drug has been looked upon favourably by US regulators, which have deemed it a priority treatment. Should the drug be approved, we estimate it could achieve multi-billion dollar annual sales. We initiate coverage with a 171p target price, indicating substantial upside to the current share price.

- **Blockbuster potential:** We expect Lupuzor could achieve multi-billion dollar annual sales as a potential treatment for Lupus. The drug has also recently shown promise in several other major chronic inflammatory indications.
- **Unmet medical need:** Lupus is a chronic inflammatory disease which is thought to affect some 5 million individuals worldwide. Existing treatments offer marginal efficacy while leading to significant side-effects.
- **Strong regulatory position:** Lupuzor has received Fast-Track and Special Protocol Assessment designations from the US Food and Drug Administration.
- **Valuation:** Our DCF model indicates a fair value of 171p/share, at which we set our Target Price.

Company description

ImmuPharma plc is a late clinical stage drug development business specialising in the areas of autoimmune disease and oncology.

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INVESTMENT APPRAISAL

Lead product in late-stage clinical trial

ImmuPharma's flagship drug, Lupuzor, a potential treatment for Lupus, is currently being evaluated in a pivotal Phase 3 clinical trial. The trial is recruiting patients across Europe and the US and is expected to generate top line results before the end of 2017. Should the trial prove successful, we estimate that ImmuPharma could strike a major licensing agreement with a commercial partner. Very few AIM-listed drug development companies have late-stage clinical assets of similar calibre.

Unmet medical need

Lupus is a chronic inflammatory disease which is thought to affect some 5 million individuals worldwide. The current standard of care still consists of drugs which have many side-effects and limited efficacy. Despite the need for an effective treatment, only one new therapy, namely GlaxoSmithKline's Benlysta, has been approved to treat the condition over the past 50 years. Even this treatment is only marginally effective while also being associated with significant side-effects. As such, there clearly exists an unmet medical need.

Established path to market

Despite its underwhelming efficacy, Benlysta had sales of over $400m in 2015, while forecasts predict annual sales to hit $1bn by 2020. Given Benlysta's success to date, we estimate that Lupuzor has a clear path into an established market with attractive economics. Moreover, on the basis of Lupuzor's Phase 2b trial data, the drug demonstrated a higher response rate and fewer side-effects than Benlysta. As such, Lupuzor appears to be safer and more effective than Benlysta, and is consequently likely to see higher market uptake if approved.

Strong regulatory position

Lupuzor has received Fast-Track designation from the US Food and Drug Administration (FDA), which expedites the drug's approval process by shortening review periods. Lupuzor has also received FDA approval to complete its trials under Special Protocol Assessment (SPA) which effectively guarantees that the regulator will accept the trials' results if they are positive. Having received both Fast Track and Special Protocol Assessment designations, Lupuzor is in a strong regulatory position.

Further pipeline programmes

ImmuPharma also has a clinical-stage oncology treatment in the pipeline. As well, the group's wholly owned subsidiary, UREKA, is working on several other preclinical programmes which offer promise in the treatment of various major conditions, including diabetes.

Valuation

Our DCF analysis indicates a fair value of £217m or 171p/share, at which we set our Target Price. Of note, in July 2012, ImmuPharma's closest peer, Human Genome Sciences, was acquired by GlaxoSmithKline for $3.6bn, for its 50% stake in Benlysta.

INTRODUCTION

Lead compound, Lupuzor, is a potential treatment for Lupus

Few AIM-listed drug development companies have late-stage clinical assets in the pipeline. ImmuPharma plc (LSE: IMM.L; Figure 1) is an exception. The company's lead compound, Lupuzor, a potential treatment for Lupus, is undergoing a Phase 3 clinical trial, which is currently dosing patients across the US and Europe, and which is expected to read-out top line results before the end of 2017.

Lupus is a significant unmet medical need, with only one novel treatment approved for the condition over the past fifty years. An estimated 5 million individuals globally are thought to suffer from the disease. The condition is an autoimmune disorder, whereby the immune system overreacts to self-antigens and begins to attack a patient's normal tissues. The most common and severe form of Lupus is Systemic Lupus Erythematosus, or SLE, which is the indication that Lupuzor is being trialled on.

ImmuPharma also has an oncology asset in the pipeline which is ready for efficacy trials. As well, the company's wholly owned subsidiary, UREKA, is developing several earlier-stage preclinical candidates which target major indications including diabetes.

We initiate coverage with a 171p Target Price, indicating almost 400% upside. As such, we estimate that ImmuPharma is grossly undervalued.

FIGURE 1 / IMMUPHARMA LOGO

SOURCE: ImmuPharma

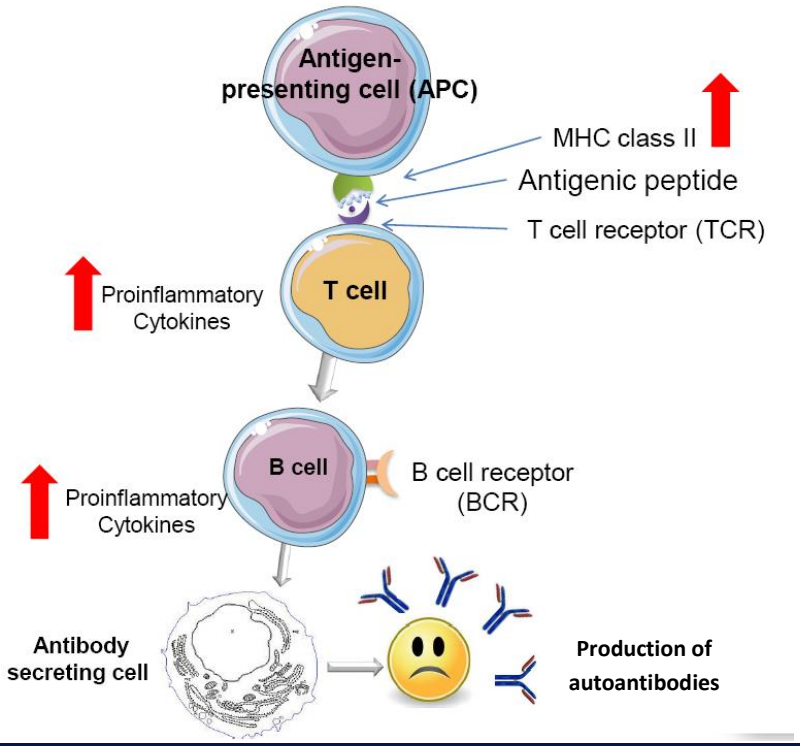
ABOUT LUPUS

What is Lupus?

Lupus is a chronic inflammatory disease associated with disorders of the immune system. Specifically, self-antigens trigger a T-Cell mediated autoimmune cascade, which then ultimately leads to the production of unwanted autoantibodies which target healthy tissue (see Figure 2).

Lupus is a chronic inflammatory disease

FIGURE 2 / LUPUS CASCADE



SOURCE: ImmuPharma

The most common and severe form of Lupus is known as Systemic Lupus Erythematosus, or SLE. The condition can involve various parts of a patient's body, including the joints, skin, kidneys, blood, heart and lungs. Symptoms vary widely from person to person, with certain individuals being severely affected while others only experiencing mild flare-ups.

Key symptoms include fatigue, joint pain and rashes. Other symptoms include (see Figure 3): fever; hair loss; high blood pressure; headaches and migraines; abdominal pain; chest pain; depression; memory loss; seizures; psychosis; and in some cases death.

SLE occurs from infancy to old age, with the highest occurrence between the ages of 15 and 40. The disease affects some ethnic groups more than others and is five to ten times more prevalent amongst women.

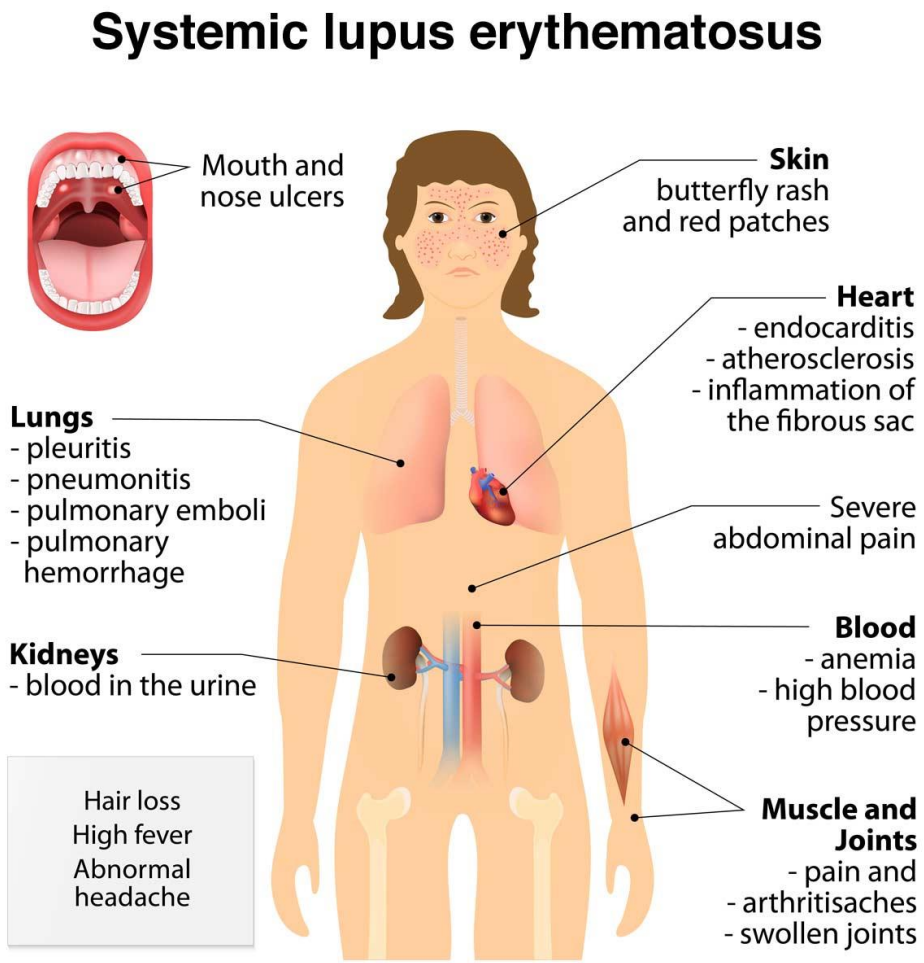
Unmet medical need

An estimated 5 million people globally are thought to have some form of Lupus disease. Of these, c. 70% of cases have SLE. Approximately 1.5 million individuals are estimated to suffer from SLE in Europe, the US and Japan.

c.5m people have Lupus

Despite this large market, there is a lack of safe and effective treatments for SLE, as current drugs have serious side-effects and limited effectiveness.

FIGURE 3 / LUPUS (SLE) SYMPTOMS



SOURCE: http://www.medicalnewstoday.com/info/lupus

LUPUZOR

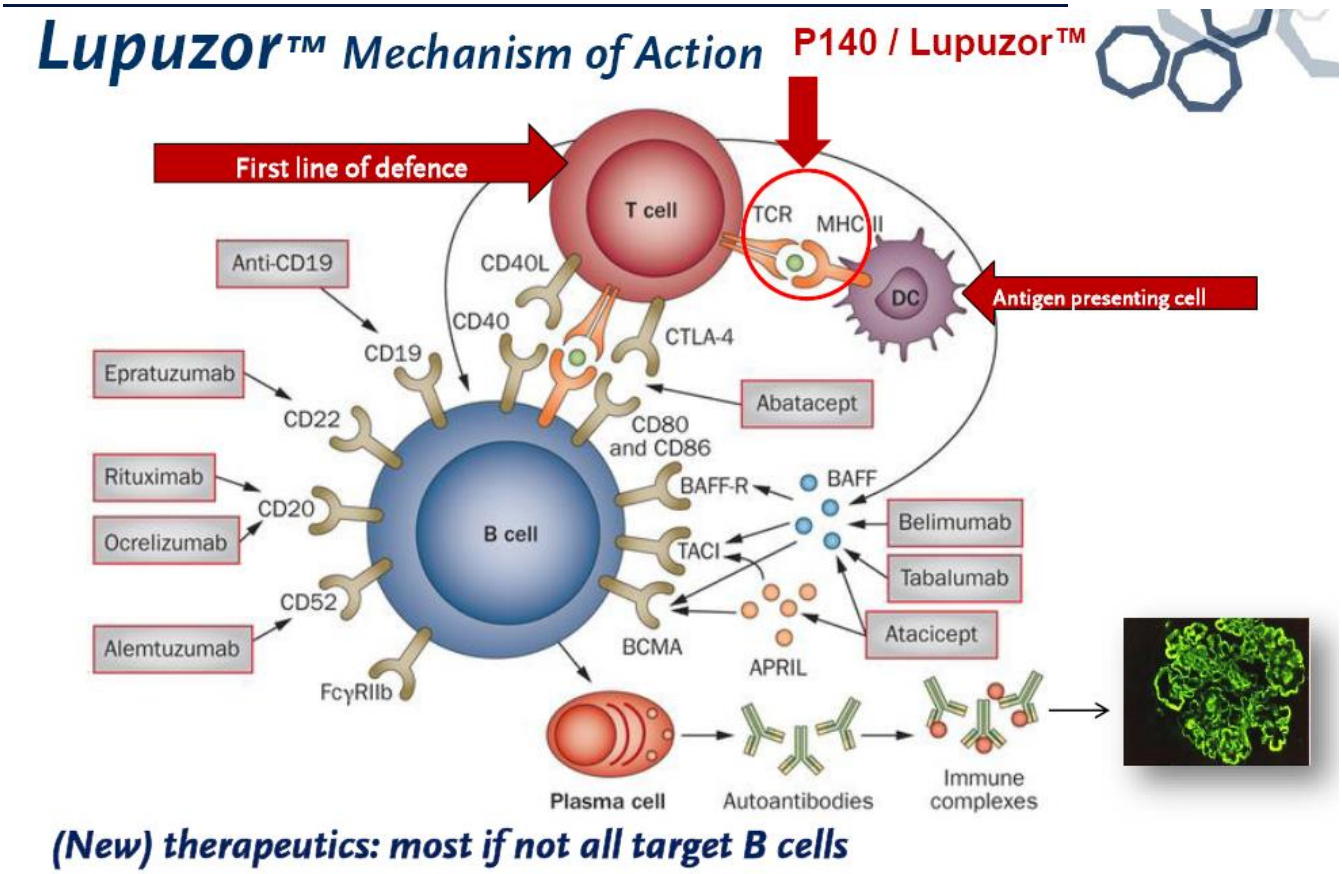
Lupuzor, or P140, is a chemically synthesized 21 amino acid peptide biological molecule designed to modulate the immune system to treat SLE. The drug was first developed at the Centre National de la Recherche Scientifique (CNRS) in France, with which ImmuPharma has a long standing collaboration. The CNRS is one of Europe's largest fundamental research institutions.

Unique mechanism of action

Novel mechanism of action, targeting upstream T-cell activation

Lupuzor's unique mechanism of action involves modulating the activation of auto-reactive T-cells. With little success to date, other attempts to modulate the immune response in SLE have been done further downstream in the immune cascade (see Figure 4), most notably in the regulation of B-cells. However, in targeting upstream T-cell activation, Lupuzor presents a novel approach in modulating this unwelcome autoimmune reaction.

FIGURE 4 / LUPUZOR'S MECHANISM OF ACTION



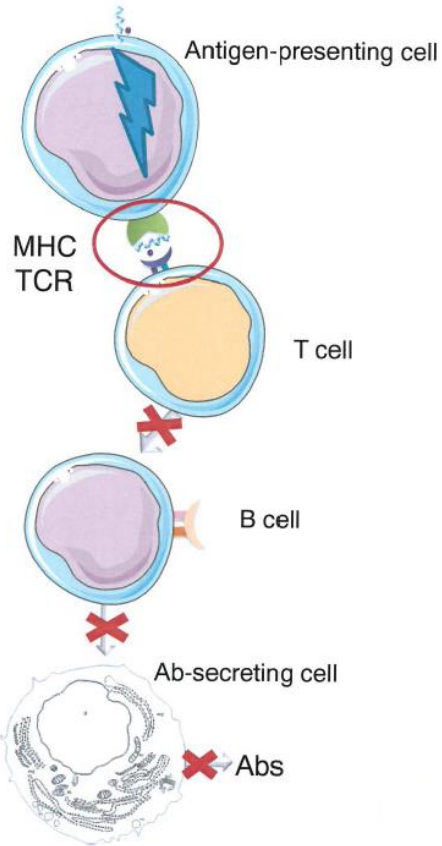
SOURCE: ImmuPharma

Mechanistically, the drug acts by disrupting the stability of MHC molecules on Antigen-Presenting cells, therefore hampering the presentation of self-antigens to T-cells. As a result, T-cells do not get activated and the cascade leading to autoantibody production is stopped (Figure 5).

Significant evidence in support of Lupuzor

Lupuzor has undergone substantial testing, including preclinical development, phase 1, phase 2a and phase 2b trials.

FIGURE 5 / LUPUS CASCADE BLOCKED UPSTREAM



SOURCE: ImmuPharma

Performed well in a Phase 2b trial

Most importantly, Lupuzor performed well in a clinical Phase 2b trial, testing c. 200 patients (including all groups and placebo), where the drug demonstrated significant efficacy in the treatment of SLE. Moreover, the drug has demonstrated a clean safety profile throughout clinical trials to date.

The Phase 2b study was a randomised, double-blind, placebo-controlled trial conducted in 21 study sites across four countries. Eligible patients were randomly assigned in a 1 : 1 : 1 ratio to receive subcutaneous injections of Lupuzor 200 µg every 4 weeks (group 1), Lupuzor 200 µg every 2 weeks (group 2) or placebo (group 3) together with standard of care (SOC).

Key results of this Phase 2b trial are demonstrated in Figure 6, where data show the percentage of patients achieving a clinical response according to the SRI (SLE Responder Index) at weeks 12 and 24. Results showed a statistically significant ($p<0.025$) response over placebo at week 12 in patients treated with Lupuzor every 4 weeks—61.9% of patients treated with Lupuzor were responders vs. 38.6% of those treated with placebo, demonstrating a clinical impact of over 23%. A 'responder' is described by FDA guidelines as a patient who responds by at least 4 points on the SLEDAI scale (SLE Disease Activity Index) with no BILAG A event and no worsening of the PGA, alongside several other technical measures.

Obtained Fast-Track designation

ImmuPharma has received Fast-Track designation from the US FDA for Lupuzor for the treatment of SLE. Fast Track designation expedites the FDA approval process by allowing companies to

benefit from more frequent interactions with the FDA during clinical development and shortening FDA review periods.

FIGURE 6 / RESULTS FROM PHASE 2B TRIAL

	Lupuzor		
	Group 1 (200 µg every 4 weeks)	Group 2 (200 µg every 2 weeks)	Group 3 (placebo)
Week 12	n=42	n=48	n=44
Responders, n (%)	26 (61.9)	23 (48.0)	17 (38.6)
	p=0.016	p=0.18	–

SOURCE: Zimmer et al. Ann Rheum Dis 2012;0:1–6.

Special Protocol Assessment granted by FDA

Lupuzor also received FDA approval to commence its pivotal Phase 3 trials under Special Protocol Assessment (SPA). An SPA is a binding commitment from the FDA that a pre-agreed trial protocol (including trial design, clinical endpoints, and statistical analyses) is sufficient for a subsequent FDA approval. The importance of this is that it effectively guarantees that the FDA will accept the trials' results if they are positive.

Having received both Fast Track and Special Protocol Assessment designations, Lupuzor has clearly been viewed by the FDA as a priority treatment.

Strong regulatory position with the US FDA

Phase 3 trial underway

ImmuPharma has commenced dosing patients in a pivotal Phase 3 trial on Lupuzor. The trial is registered on clinicaltrials.gov as 'A 52-Week, Randomized, Double-Blind, Parallel-Group, Placebo-Controlled Study to Evaluate the Efficacy and Safety of a 200-mcg Dose of IPP-201101 Plus Standard of Care in Patients With Systemic Lupus Erythematosus.' The trial is being run by Simbec-Orion, a Contract Research Organisation with expertise in Lupus trials. The trial's key attributes include:

- 45 investigator sites (10 centres in the US and 35 centres in Europe)
- 200 patients in the study
- One year dosing
- Double-blind, placebo controlled, once a month dose of 0.2mg of Lupuzor
- The primary outcome measure is the assessment of the SLE Responder Index (SRI) at week 52. A SRI response is defined as a reduction from baseline in the SLE Disease Activity Index 2000 (SLEDAI-2K) score of at least 4 points.

The trial protocol is similar to that of the previously successful Phase 2b study. With both US and European dosing now underway, we expect top line data by the end of 2017.

Ongoing Phase 3 trial expected to read-out top line results by the end of 2017

History of commercial success

Lupuzor already has a track record of commercial success. In 2008, ImmuPharma licensed the world-wide rights to Lupuzor to US specialty pharma company Cephalon Inc. As part of a $500m upfront and milestone deal (with further royalty payments on future sales), Cephalon paid ImmuPharma $15m upfront prior to completion of the Phase 2b trial and another $30m when the Phase 2b interim data became available. Cephalon then assumed all costs of further development and commercialisation. This deal not only provided validation of the quality of Lupuzor as a potential treatment for SLE, but it also illustrated the commercial value of the treatment. Finally, the deal also demonstrated ImmuPharma's ability to find significant commercial partners, which the group continues to aggressively pursue.

On October 14th 2011, Cephalon was acquired by Teva Pharmaceuticals, a generic drug manufacturer. As a result of the deal, ImmuPharma terminated the license contract—which it had the right to do, due to non-compete and change-of-control clauses in the original agreement. Consequently, ImmuPharma regained all the product rights to Lupuzor, having already collected $45m in non-reimbursable payments from Cephalon.

Other immune-modulating activity of Lupuzor

Shown to act against other chronic inflammatory diseases

Recently ImmuPharma presented new evidence supporting Lupuzor's activity in several other major disease indications, including Rheumatoid Arthritis, Crohn's Disease, and Asthma. In particular, the peptide appears to have general effects against chronic inflammatory indications. Other pre-clinical evidence supports the molecule's use in: Neuropsychiatric lupus (NPSLE); Gougerot-Sjögren syndrome (GSS); and Guillain-Barre disease (chronic/CIDP).

ESTABLISHED PATH TO MARKET

Current treatment options

There are currently very few treatment options for SLE sufferers. The standard of care still consists of steroids, immunosuppressants, methotrexate and anti-malarials, all of which have limited efficacy (over 60% of patients are not adequately treated) and cause many undesirable side-effects—particularly immunosuppression, which carries significant FDA warnings.

In 2011, the FDA approved the first new drug for SLE in more than 50 years, namely GlaxoSmithKline's Benlysta (belimumab). However, this treatment also has proven to be a disappointment, in that it is only marginally effective while also being associated with significant side-effects—Benlysta is an immunosuppressant and as a result it carries significant FDA warnings on its label. Nonetheless, due to the unmet medical need in SLE, Benlysta has had significant success in the market. The drug generated over $400m in sales in 2015, with forecasts predicting annual sales to hit $1bn by 2020.

We estimate that Benlysta provides a lower limit proxy for the future market potential of Lupuzor, especially given that Lupuzor may prove to be a better and safer drug.

How Lupuzor stacks up

Several distinct advantages over competing product

Lupuzor has several distinct advantages over Benlysta. On the basis of Lupuzor's Phase 2b trial data, the drug appears to be more effective, demonstrating a higher response rate among patients.

Also, Lupuzor appears to have a far better side-effect profile, as demonstrated by significantly lower drop-out rates in clinical trials. As well, due to its mechanism of action, Lupuzor is not an immunosuppressant and is not immunogenic. Consequently, the drug would not carry similar FDA warnings to Benlysta's. If Lupuzor continues to be as well tolerated as it has been to date, it is highly likely to see better patient uptake and compliance once the product is launched.

Figure 7 compares the clinical results of the two treatments.

FIGURE 7 / LUPUZOR VS. BENLYSTA

	Lupuzor*	Benlysta*
Duration of treatment	3 months	12 months
N	86	548
Drop-out rate % (active/placebo)	8%/16%	23%/25%
% Responder active	62%	43%
% Responder placebo	39%	33%
Clinical impact	23%	10%
p<0.025	yes	yes

SOURCE: ImmuPharma, *Lupuzor (Zimmer et al., 2012, data from Phase 2b trial); Benlysta (Furie et al., 2011, data from Phase 3 trial)

Clear path to market with attractive economics

Clear path into an established market with attractive economics

Given Benlysta's success to date, and given Lupuzor's potential advantages over the drug, we estimate that Lupuzor has a clear path into an established market with attractive economics.

Currently, Benlysta is priced at $35,000/per patient/per year. However, because the drug is an antibody (a very large molecule), it is relatively expensive to produce and the amount of drug needed to treat patients is much higher (10 mg/kg/month = 700 mg, compared to 0.2 mg for Lupuzor). We estimate that Lupuzor, being a small peptide, will cost far less to manufacture and consequently could be priced at a significant discount to Benlysta.

Also, SLE patients are treated by specialists, not GPs, consequently the product's roll out would have relatively low marketing costs, further contributing to the treatment's already high projected gross margins.

Should Lupuzor deliver better efficacy with less side-effects, at a lower cost per patient, we believe the drug could see much stronger uptake than Benlysta. Given that Benlysta is already achieving annual sales of over $400m, we estimate that Lupuzor could significantly exceed this figure.

Finally, Lupuzor's recently demonstrated effects (pre-clinically) against other chronic inflammatory indications could result in the drug achieving multi-billion dollar annual sales across several indications. The Rheumatoid Arthritis (RA) market provides a good example of what could be achieved should Lupuzor be effective in this indication. Several RA drugs have achieved block-buster status, including (2014 figures): Humira ($13bn in annual sales); Remicade ($10bn in annual sales); Enbrel ($9bn in annual sales).

OTHER PIPELINE PRODUCTS

ImmuPharma also has an earlier clinical-stage programme in the pipeline in the area of oncology. Also, the group's wholly owned subsidiary, UREKA, is working on several other preclinical programmes which offer promise in the treatment of various major conditions, including diabetes.

Cancer treatment

ImmuPharma's second most advanced pipeline programme, IPP-204106, is a potential treatment for various cancers. The programme involves the development of synthetic peptides, Nucants, which target nucleolin with very high affinity and selectivity. Nucleolin is a protein which controls critical pathways within the cell. The protein is over-expressed at the surface of dividing cells which makes its binding with Nucants very attractive because of its potential selectivity—this is of particular importance in tumour targeting.

Nucleolin has also been shown to be involved in angiogenesis—the development of new blood vessels. Angiogenesis is instrumental to tumour development as it is the method by which a tumour recruits blood to sustain itself. However the quality of these new vessels is poor. Recent studies have demonstrated that reducing the blood flow of tumours may induce 'hypoxic shock' which leads to the tumour forming resistance to chemotherapy. ImmuPharma's Nucants are thought to interfere with these processes. In addition, Nucant peptides are also thought to have anti-proliferative properties, which again further inhibit cancer growth.

Second clinical programme ready for efficacy trials

To date, over and above the substantial in-vitro evidence supporting the effect of ImmuPharma's Nucants on cancer cell lines, in vivo preclinical studies on mice have shown that tumours were completely eradicated by the treatment and survival times were significantly increased. As a result of this evidence, and supported by early safety trials, the programme is now ready for efficacy trials.

Finally, the effect on blood supply delivered by Nucants is also thought to have other potential applications. Degenerative diseases of the eye (DMLA, diabetic retinopathy) are characterised by changes to blood supply. In pre-clinical studies and models, Nucants have been demonstrated to correct these pathologies. ImmpuPharma estimates that Nucants could in future potentially treat these diseases via IV administration and not by intra-ocular injections, which would present a material improvement on current treatments.

UREKA

ImmuPharma also wholly owns a subsidiary, UREKA, which is located within the Institut Européen de Chimie et Biologie (IECB) incubator (Figure 8) at the University of Bordeaux. By being in the IECB, UREKA's team not only has access to state-of-the-art professional laboratories and equipment, but it also has the opportunity to work closely with other IECB scientists and CNRS teams, as well as with the broader CNRS. Moreover, the arrangement allows ImmuPharma to better benefit from various local, national and pan European sources of grant financing.

The UREKA group is primarily working on ImmuPharma's co-patented Urelix peptide technology platform, which has the ability to mimic protein structures, allowing for the preservation (or enhancement) of function while significantly increasing protein stability. Early work using this technology has shown promise in the potential treatment of diabetes, with other indications in the pipeline.

FIGURE 8 / UREKA LABS IN THE IECB

SOURCE: Google Maps

REVENUE FORECASTS AND VALUATION

Revenue forecasts

We expect ImmuPharma's Phase 3 trial to be completed by the end of 2017, after which we expect the company to strike a partnership agreement for Lupuzor in 2018. Figure 9 summarises our risk-adjusted revenue forecasts for SLE.

We expect a partnership agreement to be struck in 2018

Our key assumptions include:

- A partnering agreement is struck in 2018, which includes:
    - An upfront payment of £50m (with an 65% probability of occurring, or £32.5m when risk-adjusted), upon signature of the deal in 2018;
    - A 12% royalty on all sales (with a 65% probability of occurring)—this is conservative given the late-stage nature of the asset. The royalty rate could be substantially higher.
    - The partner takes on all future expenses associated with bringing Lupuzor to market for the treatment of SLE. Here, we assume that the FDA will then likely require a second Phase 3 trial to be undertaken by the partner.
- Lupuzor is launched in the US and Europe in 2020, and in Rest of World jurisdictions in 2021.
- The total addressable market includes 500k eligible patients annually today in the US, 500k in Europe and 1m in RoW jurisdictions.
- Market penetration is very conservatively forecast to be 1% in the first year of sales, growing to 15% at peak sales in both the US and Europe. In RoW jurisdictions peak penetration is forecast to reach 5%. Our penetration estimates are very conservative. In a bull case scenario, penetration levels could exceed 50% (at peak) given Lupuzor's clinical potential.
- Lupuzor's price per year of treatment is forecasts to be £10k at launch, growing 5% annually thereafter. This is also a very conservative assumption given that Benlysta is currently priced at $35k/year. We believe that potential partners could price Lupuzor at substantially higher levels, given that the market is currently able to absorb Benlysta's premium price.

Valuation

Given that ImmuPharma does not generate any revenues, we believe that the best method for valuing the company is by discounting future cash flows (DCF).

In support of our DCF valuation we produced 10 years of detailed forecasts, from 2016 to 2025 inclusively. For the period after that, our terminal value is calculated using a long term free cash flow growth rate of 4%.

Our discount rate is 25%, which we believe is very conservative, especially given that our revenue forecasts have already been heavily risk-adjusted to account for potential clinical trial failures. Consequently we see scope for reducing this rate. Figure 10 exhibits our DCF analysis.

FIGURE 9 / SLE RISK-ADJUSTED REVENUE FORECASTS

SLE Revenue (£m)	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
US										
Patient population	500,000	505,000	510,050	515,151	520,302	525,505	530,760	536,068	541,428	546,843
% treated					1.0%	2.0%	5.0%	7.0%	10.0%	15.0%
# of patients treated					5,203	10,510	26,538	37,525	54,143	82,026
Price per course (£)					-	10,000	10,500	11,025	11,576	12,155
Sales (£m)					**-**	**105.1**	**278.6**	**413.7**	**626.8**	**997.0**
EU										
Patient population	500,000	505,000	510,050	515,151	520,302	525,505	530,760	536,068	541,428	546,843
% treated					1.0%	2.0%	5.0%	7.0%	10.0%	15.0%
# of patients treated					5,203	10,510	26,538	37,525	54,143	82,026
Price per course (£)					10,000	10,500	11,025	11,576	12,155	12,763
Sales (£m)					**52.0**	**110.4**	**292.6**	**434.4**	**658.1**	**1,046.9**
RoW										
Patient population	1,000,000	1,010,000	1,020,100	1,030,301	1,040,604	1,051,010	1,061,520	1,072,135	1,082,857	1,093,685
% treated						1.0%	2.0%	3.0%	4.0%	5.0%
# of patients treated						10,510	21,230	32,164	43,314	54,684
Price per course (£)						10,000	10,500	11,025	11,576	12,155
Sales (£m)						**105.1**	**222.9**	**354.6**	**501.4**	**664.7**
Total sales (£m)				**-**	**52.0**	**320.6**	**794.1**	**1,202.7**	**1,786.3**	**2,708.6**
probability of success				65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%
Total sales, risk adjusted (£m)				**-**	**33.8**	**208.4**	**516.2**	**781.8**	**1,161.1**	**1,760.6**
Net royalty rate				12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%
Total royalty revenue, risk adjusted (£m)				**-**	**4.1**	**25.0**	**61.9**	**93.8**	**139.3**	**211.3**
Milestones										
milestone revenue (£m)			50.0							
probability of success			65.0%							
milestone revenue to Evgen risk adjusted (£m)			**32.5**							
Total revenue, risk adjusted (£m)	**-**	**-**	**32.5**	**-**	**4.1**	**25.0**	**61.9**	**93.8**	**139.3**	**211.3**

SOURCE: Northland Capital Partners Limited estimates

DCF indicates 171p price target

Our DCF analysis indicates a fair value of £217m or 171p/share, at which we set our Target Price.

The rest of the group's portfolio although not included in our valuation adds further upside to our Target Price. Moreover, Lupuzor could potentially be active in several other large indications, including Rheumatoid Arthritis, Crohn's Disease, and Asthma, which again is not factored into our valuation. Given the considerable opportunity for future growth, driven by a world-wide roll-out of Lupuzor across multiple indications, we see significant upside to our DCF valuation.

FIGURE 10 / DISCOUNTED CASH-FLOWS ANALYSIS

DCF (£)	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
FCF (adj.)	**(4,729,943)**	**(3,901,384)**	**27,318,754**	**(5,473,121)**	**2,339,002**	**17,325,946**	**51,296,642**	**80,602,857**	**122,508,266**	**188,787,823**
Discount factor	1.00	0.80	0.64	0.51	0.41	0.33	0.26	0.21	0.17	0.13
Discounted FCF	**(4,729,943)**	**(3,121,107)**	**17,484,003**	**(2,802,238)**	**958,055**	**5,677,366**	**13,447,107**	**16,903,644**	**20,553,476**	**25,338,673**
Discount Rate	25%									
Term Gr. Rate	4%									
NPV	89,709,036									
TV	125,486,760									
EV	215,195,796									
Net Cash	2,259,424									
Fair Value (£)	**217,455,220**									
Target Price (p)	**171**									

SOURCE: Northland Capital Partners Limited estimates

M&A deal demonstrates value of a novel Lupus drug

Key peer acquired for $3.6bn

In July 2012 GlaxoSmithKline (GSK) acquire Human Genome Sciences (HGS) for $3.6bn on an equity basis, or approximately $3bn net of cash and debt. In completing this deal GSK acquired full ownership of Benlysta which was co-developed with HGS. Before the deal was concluded GSK already owned a 50% stake in Benlysta's profits as part of its co-development agreement with HGS. This deal again demonstrates the significant value of a novel Lupus treatment.

SUMMARY FORECASTS

Profit & Loss (£) (year ending December)	2014A	2015A	2016E	2017E
Revenue (risk-adjusted)	**184,815**	**76,407**	**-**	**-**
Cost of sales	-	-		-
Gross profit	**184,815**	**76,407**	**-**	**-**
Operating expenses	(3,609,715)	(4,639,516)	(6,639,516)	(4,900,000)
Other income / exceptionals	-	-	-	-
Operating profit	**(3,424,900)**	**(4,563,109)**	**(6,639,516)**	**(4,900,000)**
Finance costs	84,741	14,635	-	-
Profit before tax	**(3,340,159)**	**(4,548,474)**	**(6,639,516)**	**(4,900,000)**
Profit before tax (adj.)	**(3,340,159)**	**(4,548,474)**	**(6,639,516)**	**(4,900,000)**
Income tax credit (expense)	468,679	650,977	1,500,000	800,000
Profit after tax	**(2,871,480)**	**(3,897,497)**	**(5,139,516)**	**(4,100,000)**
Profit after tax (adj.)	**(2,871,480)**	**(3,897,497)**	**(5,139,516)**	**(4,100,000)**
Shares out (m)	84	89	122	122
Shares out, fully diluted (m)	84	89	127	127
EPS (p)	**(3.43)**	**(4.40)**	**(4.22)**	**(3.37)**
EPS Adj. (p)	**(3.43)**	**(4.40)**	**(4.22)**	**(3.37)**

SOURCE: Northland Capital Partners Limited estimates

Cashflows (£) (year ending December)	2014A	2015A	2016E	2017E
EBIT	**(3,424,900)**	**(4,563,109)**	**(6,639,516)**	**(4,900,000)**
Depreciation & Amortisation	99,166	121,748	109,573	98,616
EBITDA	**(3,325,734)**	**(4,441,361)**	**(6,529,943)**	**(4,801,384)**
Share option related charges	43,275	-	300,000	100,000
Working capital movements	51,093	(141,050)	-	-
Operating CF	**(3,231,366)**	**(4,582,411)**	**(6,229,943)**	**(4,701,384)**
Interest	(14,195)	(1,208)	-	-
Capex	(275,172)	(9,220)	-	-
Tax	754,996	435,261	1,500,000	800,000
FCF	**(2,765,737)**	**(4,157,578)**	**(4,729,943)**	**(3,901,384)**
Acquisitions/Disposals	-	-	-	-
Share issues (net)	3,360,200	-	6,600,000	1,800,000
Debt movements	(395,472)	(310,126)	-	-
Exceptionals	-	-	-	-
Other	(171,254)	(122,941)	-	-
Change in cash	**27,737**	**(4,590,645)**	**1,870,057**	**(2,101,384)**
Cash at beginning of period	**5,396,296**	**5,424,033**	**833,388**	**2,703,445**
Cash at end of period	**5,424,033**	**833,388**	**2,703,445**	**602,061**

SOURCE: Northland Capital Partners Limited estimates

Balance Sheet (£) (year ending December)	2014A	2015A	2016E	2017E
Intangible assets	560,537	522,462	412,889	314,273
Property, plant and equipment	366,363	280,127	280,127	280,127
Non-current assets	**926,900**	**802,589**	**693,016**	**594,400**
Current tax	-	-	-	-
Trade and other receivables	721,410	1,577,091	1,577,091	1,577,091
Cash and cash equivalents	5,424,033	833,388	2,703,445	602,061
Current assets	**6,145,443**	**2,410,479**	**4,280,536**	**2,179,152**
Borrowings and provisions	(441,320)	(163,070)	(163,070)	(163,070)
Trade and other payables	(549,652)	(1,078,640)	(1,078,640)	(1,078,640)
Current liabilities	**(990,972)**	**(1,241,710)**	**(1,241,710)**	**(1,241,710)**
Loans	(375,989)	(280,951)	(280,951)	(280,951)
Other payables	-	-	-	-
Non-current liabilities	**(375,989)**	**(280,951)**	**(280,951)**	**(280,951)**
Net assets	**5,705,382**	**1,690,407**	**3,450,891**	**1,250,891**
Share capital	8,862,246	8,862,246	8,862,246	8,862,246
Merger reserve	106,148	106,148	106,148	106,148
Share premium and shares to be issued	10,490,920	10,490,920	17,090,920	18,890,920
Other reserves	(3,647,195)	(3,764,673)	(3,464,673)	(3,364,673)
Profit and loss account	(10,106,737)	(14,004,234)	(19,143,750)	(23,243,750)
Total shareholders' equity & Non-controlling Int.	**5,705,382**	**1,690,407**	**3,450,891**	**1,250,891**

SOURCE: Northland Capital Partners Limited estimates

MANAGEMENT

Tim McCarthy, Non-executive Chairman

Mr McCarthy has a 35 year international business career in high growth biotech, healthcare and technology companies. He is currently Chairman and Non-Executive Director for a number of biotech and healthcare related companies, including Incanthera, Harvard Healthcare and Expedeon Holdings. Mr McCarthy is also the former Chief Executive Officer and Finance Director of a number UK listed public and private companies, including Alizyme plc and Peptide Therapeutics Group plc, and has a core understanding of AIM and its regulatory processes. Co-founding a number of healthcare and biotechnology companies, Mr McCarthy has helped raise substantial amounts of equity capital and also advised and worked at Board level for a diverse range of companies internationally, in areas such as business strategy, mergers & acquisitions, due diligence and licensing. A Fellow of the Association of Chartered Certified Accountants, Mr McCarthy has an MBA from Cranfield School of Management.

Dimitri F Dimitriou, MSc, Chief Executive Director & Co-Founder

Dimitri F. Dimitriou has 25 years' experience in the pharmaceutical and biotech industry. Prior to co-founding ImmuPharma, he was Senior Director, Worldwide Business Development at GlaxoSmithKline, where his responsibilities included worldwide corporate deals with pharmaceutical and biotech companies. He held a similar role in Europe for Bristol-Myers Squibb. He spent 8 years at Procter & Gamble in senior marketing, R&D and business development positions and began his career in marketing at Novartis (Sandoz) in 1987. He has a degree in biochemistry from Kings College, University of London and an MSc in pathology and toxicology from the Imperial College Medical School.

Dr Robert Zimmer, MD, PhD, President & Chief Science Officer

Dr. Robert Zimmer was the founder and chief executive officer of both ImmuPharma Switzerland and ImmuPharma France. He is an expert in clinical pharmacology and life cycle management. He was instrumental in developing a substantial number of products for clients including Roche, GlaxoSmithKline, Abbott, Searle, Sanofi-Aventis and Lilly. He began his career in Roche's headquarters in Basle as coordinator of clinical pharmacology and international clinical leader. He subsequently joined Jago Pharma, the drug delivery company, and became a director and head of research and development at SkyePharma after it acquired JAGO. He obtained his MD at Strasbourg Medical School and his PHD at the University of Aix-Marseille.

Dr Franco Di Muzio, Senior Non-Executive Director

Dr. Di Muzio has 40 years experience in the pharmaceutical and other industries, encompassing international management experience in business development, strategic marketing, international finance, M & A and re-engineering businesses. After graduating in Economics and Business in 1963, Dr Di Muzio worked for Colgate Palmolive and Nestle before joining Squibb (now Bristol Myers Squibb) for eight years. Dr Di Muzio became Executive Vice President of BMS' medical equipment and products division, Weck International Inc., in charge of Europe, Asia, Middle East and Africa. In 1990, he joined Glaxo Wellcome plc. (now GlaxoSmithKline plc) in London as Area Managing Director and Head of all GW's business in the Middle East, Africa and Turkey. Following early retirement from Glaxo Wellcome, in the beginning of 1998, he joined Alza International, the then world leader in drug delivery systems, as Managing Director, based in London, in charge of the company's business expansion in all markets outside the US and

remained there until the end of 2000. On 6 May 2015 it was announced Dr Di Muzio had been appointed Interim Chairman due to Richard Warr's ill health.

Dr Stéphane Méry, Non-Executive Director

Dr Stéphane Méry has extensive experience in the Healthcare industry. He is currently CEO of Contronics Ltd, which designs and sells laboratory monitoring equipments, and until recently he was Partner at Beringea LLP, a $400m US/UK venture capital fund, where he was responsible for healthcare investments in Europe. Previously, he was the Fund Manager/CEO of the Bloomsbury Bioseed Fund, a Biotech and Medtech investment fund, which was behind the birth of successful companies such as Spirogen (sold to MedImmune), Abzema (listed on AIM), and Canbex, (recently sold to Ipsen). Prior to this, Stéphane was Associate Director, Worldwide Business Development, for SmithKline Beecham (GSK) where he was responsible for the negotiation of several major in-license deals and acquisitions. Before GSK, he was involved in the start-up of Double Helix Development, a successful strategic consultancy company specialising in R&D for the biotech and healthcare industry and recently sold to McCann. Just before, he worked as a management consultant at the American consultancy firm, ZS Associates, specialising on sales and marketing within the pharmaceutical industry. Stéphane is a Doctor in Veterinary Medicine, a trained Veterinary Pathologist, specialising in Nasal Toxicology at the Chemical Industry Institute of Toxicology (CIIT) in North Carolina, and holds an MBA from INSEAD (Fontainebleau).

Tracy Weimar, Company Secretary, VP Operations & Finance

Ms Weimar has spent over 8 years at GlaxoSmithKline and her most recent position there was Director, Worldwide Business Development where she was involved in a number of corporate licensing deals. She has also held a number of positions in health economics, strategy development, sales and marketing.

Ms Weimar was been a non-executive director for the Avon and Wiltshire Mental Health Partnership NHS Trust responsible for ensuring the Trust was accountable to the public for the services it provided and for the public funds it used. She was a member of both the Audit and Remuneration Committees of the Trust.

Prior to joining GlaxoSmithKline, Ms Weimar spent 5 years at Arthur Andersen in San Francisco and London, responsible for a range of consulting and compliance projects.

Ms Weimar holds an MBA from the London Business School and a BA in Economics from the University of California, Berkeley.

KEY RISKS

Product development risk poses the most significant threat to ImmuPharma's business. Regulatory risk and continued reliance on external financing also make the company vulnerable. Finally, UK-listed shares could experience higher volatility due to the uncertainty over the UK's Brexit plans.

Development risk

ImmuPharma's key clinical study is exposed to product development risk, as the outcome of such trials cannot be pre-determined. The purpose of conducting human clinical trials is to determine a therapy's safety and efficacy, consequently, a product's development programme is always at risk of being terminated should a trial raise any unforeseen issues.

Regulatory risk

Given that ImmuPharma operates in a highly regulated sector, there is a risk that the company will face issues in receiving approval for its compounds. However, because Lupuzor received FDA approval to commence pivotal Phase 3 trials under Special Protocol Assessment (SPA), the FDA has agreed to accept the trials' results if they are positive. The SPA significantly improves the probability of a drug being approved after successful Phase 3 trials. Having received both Fast Track and Special Protocol Assessment designations, Lupuzor has clearly been viewed by the FDA as a priority treatment.

Financing risk

We forecast that ImmuPharma has enough resources to complete its ongoing Phase 3 clinical trial by the end of 2017. Should the trial deliver positive results, we expect ImmuPharma to strike a partnering deal in 2018. There are no guarantees that such deals will be struck in due course, or at all, which could leave the company financially vulnerable. That said, the group recently raised £8.4m from investors and is supported by several substantial institutional investors including Aviva and Alto Invest.

Brexit

Although ImmuPharma is listed in the UK, the group will likely be less affected by the uncertainty over the UK's potential exit from the EU, because the company's lead product Lupuzor, if approved, would sell into a global market where there is an unmet medical need.

DISCLOSURES

Company	Ticker	Applicable disclosures
ImmuPharma plc	IMM.L	1,5

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