GSK Oncology R&D Update

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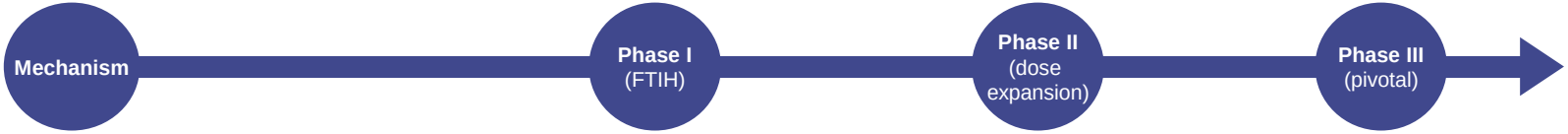
Innovation

Increased oncology focus via BD and governance

16* assets in clinical development; potential for 3 launches in 2020



PARP inhibitor (*Zejula,* niraparib) †	*First line maintenance ovarian, other solid tumours under investigation*
Anti-BCMA ADC (GSK 2857916)†	*Multiple myeloma*
PD-1 antagonist (TSR-042, dostarlimab) †	*Endometrial, Ovarian, NSCLC, breast cancer***
M7824 (TGFβ trap/anti-PDL1 bispecific) *†	*NSCLC, biliary tract cancer***
ICOS agonist (GSK3359609)†	*Solid tumours*
OX40 agonist (GSK3174998)†	*Solid and heme malignancies*
NY-ESO-1 TCR-T†	*Sarcoma, solid and heme malignancies*
BET inhibitor (GSK525762)	*Solid tumours, heme malignancies*
PRMT5 inhibitor (GSK3326595)†	*Solid tumours, heme malignancies*
TIM-3 antagonist (TSR-022) †	*NSCLC*
PI3K beta inhibitor (GSK2636771)	*Cancer*
TLR4 agonist (GSK1795091)	*Cancer*
NY-ESO-1 ImmTAC (GSK3537142) †	*Cancer*
LAG-3 (TSR-033) †	*Cancer*
PRMT1 inhibitor (GSK3368715) †	*Cancer*
RIP1k inhibitor (GSK3145095)	*Pancreatic Cancer*

† In-license or other alliance relationship with third party
* Pending closure of transaction with Merck KGaA, Darmstadt, Germany
** Studies planned for 2019

Innovation

New alliance with Merck* is an opportunity to further accelerate our oncology strategy

Current clinical status

Encouraging NSCLC data presented

Phase II underway versus pembrolizumab as 1L in patients with PD-L1+ advanced NSCLC

8 clinical development studies ongoing or expected to start in 2019

Complements existing assets

Immuno-modulatory biological mechanism fits with our new R&D approach

Potential for novel combinations with existing pipeline assets (ICOS, TLR4)

Potential to explore combinations with IO assets in the recently acquired TESARO pipeline

* Merck KGaA, Darmstadt, Germany

Innovation

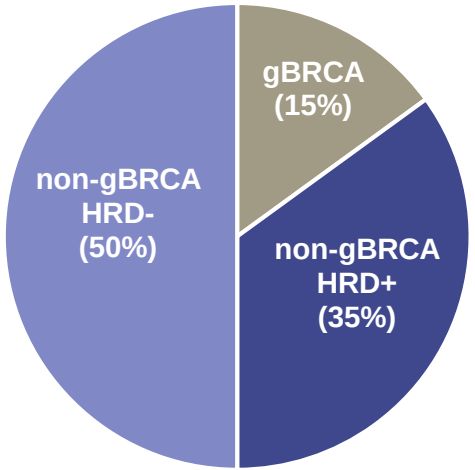
PARP inhibitors: wider application than has been appreciated

PARP Inhibitors: The First Synthetic Lethal Targeted Therapy
Science. 2017 March 17; 355(6330): 1152–1158.
Christopher J. Lord[1,2,*] and **Alan Ashworth**[3,*]

- PARP inhibitors have transformed the treatment of ovarian cancer
- Prior to the publication of TESARO's NOVA study, PARP inhibitors were thought to only benefit patients with *gBRCA*
- Evidence is mounting that suggest there is a significant opportunity to help many more patients (HRD positive – and potentially "all comers") – in the first line maintenance (1LM) setting

PARP: poly ADP-ribose polymerase; HRD: homologous recombination deficiency

High grade serous ovarian cancer*



* As per Myriad test – HRD+ percentage may be higher

Innovation

GSK‘916 (BCMA ADC): aggressive development plan in multiple myeloma advancing rapidly

July 2018

- Initiated DREAMM-2 4L monotherapy pivotal study
  - –1st subject dosed early July
  - – Planned to recruit 130 patients
- Announced broad development plan DREAMM-1 to -10 studies:
  - – 4/3L in mono and combo
  - – 2L in combo with SoC
  - – 1L in combo with novel and SoC agents

83 patients treated on ‘916 at end July 2018

February 2019

- DREAMM-2 enrolled faster than expected
  - – Planned 130 patients enrolled by Oct 2018
  - – High study screening rate meant additional 68 patients enrolled by end December 2018
- Updated DREAMM-1 study shows mPFS with 3.4mg/kg of 12.0 months; publication in leading journal expected shortly
- Initiated DREAMM-6 combination pilot study; recruiting well

297 patients treated on ‘916 at end Jan 2019

SOC: standard of care

mPFS: months of progression free survival

Q&A