

Clinical development of PSMA target therapeutic radiopharmaceutical for prostate cancer

FutureChem Co., Ltd.



ONCOLOGY	Phase 1																								
Product Type	Radiopharmaceutical ([177Lu]Ludotadipep) (Lu-177 labeled prostate cancer target therapeutic radiopharmaceutical)																								
Indication	Prostate cancer/ metastatic castrate-resistant prostate cancer (mCRPC)																								
Target	Prostate specific membrane antigen (PSMA)																								
MoA(Mechanism of Action)	PSMA targeting and cell binding → cell surface bind/internalization → cancer cell death by beta-ray radiation of Lu-177																								
Competitiveness	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #006699; color: white;">Contents</th> <th style="background-color: #99cc66;">FC705 (Ludotadipep)</th> <th style="background-color: #006699; color: white;">PSMA617</th> <th style="background-color: #006699; color: white;">PSMA I&T/point 2002</th> </tr> </thead> <tbody> <tr> <td>Company</td> <td>FutureChem</td> <td>N****</td> <td>C****/p****</td> </tr> <tr> <td>Single dose</td> <td style="color: red;">100 mCi</td> <td>200 mCi</td> <td>~200 mCi</td> </tr> <tr> <td>Differentiation point</td> <td>PSMA Peptide + Albumin Binder</td> <td>PSMA Peptide only</td> <td>PSMA Peptide only</td> </tr> <tr> <td>Dosing cycle</td> <td>6 times per 8 weeks (phase 2)</td> <td>6 times per 6 weeks</td> <td>4 times per 8 weeks</td> </tr> <tr> <td>Tumor lesion (Gy/Gbq)</td> <td style="color: red;">11.1(phase 1)</td> <td>5.9(phase 3)</td> <td>5.7(phase 2)</td> </tr> </tbody> </table> <p>Enhancement of blood circulation time by Albumin Binder (AB)</p>	Contents	FC705 (Ludotadipep)	PSMA617	PSMA I&T/point 2002	Company	FutureChem	N****	C****/p****	Single dose	100 mCi	200 mCi	~200 mCi	Differentiation point	PSMA Peptide + Albumin Binder	PSMA Peptide only	PSMA Peptide only	Dosing cycle	6 times per 8 weeks (phase 2)	6 times per 6 weeks	4 times per 8 weeks	Tumor lesion (Gy/Gbq)	11.1(phase 1)	5.9(phase 3)	5.7(phase 2)
Contents	FC705 (Ludotadipep)	PSMA617	PSMA I&T/point 2002																						
Company	FutureChem	N****	C****/p****																						
Single dose	100 mCi	200 mCi	~200 mCi																						
Differentiation point	PSMA Peptide + Albumin Binder	PSMA Peptide only	PSMA Peptide only																						
Dosing cycle	6 times per 8 weeks (phase 2)	6 times per 6 weeks	4 times per 8 weeks																						
Tumor lesion (Gy/Gbq)	11.1(phase 1)	5.9(phase 3)	5.7(phase 2)																						
Development Stage	phase 1 trials in Korea phase 1/2a clinical trial in US																								
Route of Administration	Intravenous injection																								