Technology/	BPR1M492/ A MOR/NOP Dual Agonist as a Safe Pain Killer- Novel and		
Title	Fast Acting Opioid Analgesic		
Subtitle			
Technology	Biotechnology	Device/Diagnostics	
Туре	Pharmaceutical Others:		
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	This technology demonstrated the antinociceptive effect 67 times		
	more potent than morphine while maintaining a higher level of		
	safety. There are five notable advantages listing		
	1. Potent Pain Relief:		
	 The compounds in this invention demonstrate a potent analgesic effect, superior to morphine by 67-folds. 2. Rapid Onset of Action: Rapid absorption leads to pain relief within five minutes after subcutaneous injection, significantly faster than morphine's 20 		
Technology	minutes.		
Description	3. No Tolerance Development:		
	Continuous administration of the compounds for five days does not result in a decrease in efficacy, avoiding the development		
	of tolerance.		
	4. Mild Impact on the gastrointestinal function:		
	The degree of constipation induced is milder compared to		
	morphine.		
	5. High Safety:		
	The ration of maximum	tolerated dose to the ED_{50} of	
	antinociception is signif	ficantly higher than morphine, revealing	
	superior safety to morp	ohine.	
Intellectual	US patent (in application)		
Property	US 10597378B2		
	TW I650313B		
	1. Chao, PK.; [†] <u>Ueng, SH.</u> ; [†]	Ou, LC.; Yeh, TK.; Chang, WT.; Chang,	
Кеу	HF.; Chen, SC.; Tao, PL.; Law, PY.; Loh, H. H.; Cheng, MF.;		
Publications	Chen, CT.; Shih, C.; Yeh, SH. [*] 1-(2,4-Dibromophenyl)-3,6,6-		
	trimethyl-1,5,6,7-tetrahyd	dro-4 <i>H</i> -indazol-4-one: a novel opioid	

	receptor agonist with less accompanying gastrointestinal	
	dysfunction than morphine. Anesthesiology 2017, 126, 952.	
	2. Chen, SR.; Ke, YY.; ⁺ Yeh, TK.; ⁺ Lin, SY.; Ou, LC.; Chen, SC.;	
	Chang, WT.; Chang, HF.; Wu, ZH.; Hsieh, CC.; Law, PY.; Loh, H.	
	H.; Shih, C.; Lai, YK.; [*] Yeh, SH.; [*] <u>Ueng, SH.</u> * Discovery,	
	structure-activity relationship studies, and anti-nociceptive	
	effects of N-(1,2,3,4-tetrahydro-1-	
	isoquinolinylmethyl)benzamides as novel opioid receptor	
	agonists. Eur. J. Med. Chem. 2017, 126, 202.	
Business	Technology transfer, industry cooperation	
Opportunity		

