



Final Analysis of A Randomized, Double Blind, Phase 2 Study of Sorafenib With or Without YIV-906 in Patients With Advanced HCC

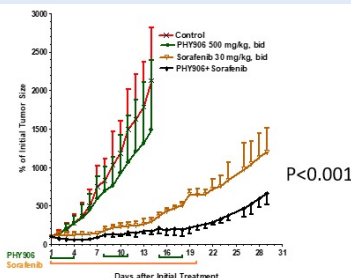
Ghassan K. Abou-Alfa^{1,2,3}, Yun Yen⁴, James J. Harding^{1,2}, Jacqueline Whang-Peng⁵, Yuankai Shi⁶, Man Fung Yuen⁷, Xuihui Li⁸, Shanzhi Gu⁹, Chenghai Liu¹⁰, Long-Bin Jeng¹¹, Chia Jui Yen¹², Calvin Q. Pan¹³, San-Chi Chen¹⁴, Jason Chia-Hsun Hsieh¹⁵, Wasif M. Saif¹⁶, Shwu-Huey Liu¹⁷, Fangyong Li¹⁸, Wing Lam¹⁸, Edward Chu¹⁹, and Yung-Chi Cheng¹⁸

¹ Memorial Sloan Kettering Cancer Center, New York, NY; ² Weill Medical College at Cornell University, New York, NY; ³ Trinity Medical College, Dublin, Ireland; ⁴ Taipei Medical University, Taipei, Taiwan; ⁵ Taipei Municipal Wanfang Hospital, Taipei, Taiwan; ⁶ Cancer Hospital Chinese Academy of Medical Sciences, Beijing; ⁷ Queen Mary Hospital, The University of Hong Kong, Hong Kong; ⁸ Beijing Youan Hospital, Capital Medical University, Beijing; ⁹ Hunan Cancer Hospital, Changsha, Hunan; ¹⁰ Shanghai University of Traditional Chinese Medicine Shuguang Hospital, Shanghai; ¹¹ China Medical University Hospital, Taichung, Taiwan; ¹² National Cheng Kung University Hospital, Tainan, Taiwan; ¹³ Calvin Pan, MD Gastroenterology & Hepatology Clinic, New York, NY ¹⁴ Taipei Veterans General Hospital, Taipei, Taiwan; ¹⁵ Linkou Chang Gung Memorial Hospital, Taoyuan, Taiwan; ¹⁶ Karmanos Cancer Institute, Detroit, MI ¹⁷ Viviva Inc., New York, NY; ¹⁸ Yale University School of Medicine, New Haven, CT; ¹⁹ Montefiore-Einstein Cancer Center: Albert Einstein College of Medicine, Bronx, NY

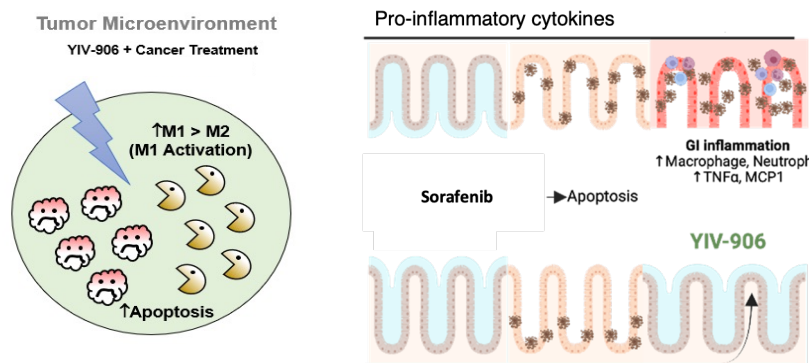
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Background

YIV-906 is a botanically derived formulation, Its polychemical composition potentiates several immune and inflammation pathways. Preclinical studies illustrate YIV-906 immunomodulation in the tumor microenvironment and antitumor activity by priming innate and adaptive immunity while reducing Sorafenib toxicity.



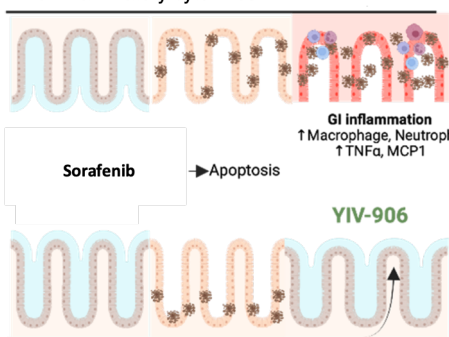
More than 250 GI cancer pts treated have demonstrated efficacy and safety. Additionally, YIV-906 reduces non-hematological toxicities by reducing GI inflammation (TNFα, NFKB, IL6, COX2, iNOS), promoting damaged tissue repair (Wnt pathway), and reducing pain (NK1).



YIV-906 Increases Therapeutic Index by Increasing and Polarizing Macrophages and modulating the immune system

- Convert chronic to acute Inflammation of tumor micro-environment
- Increase M1 like macrophage infiltration
- Enhances Apoptosis

Pro-inflammatory cytokines



YIV-906 Increases Safety by Reducing Inflammation in GI And Speeding Up Tissue Recovery

- Suppresses inflammation via inhibiting NF-κB, COX2, iNOS, IL-6
- Promotes damaged tissue recovery by enhancing the re-population of intestinal stem/progenitor cell via potentiation of WNT signaling.

Conclusions

- YIV-906 is a novel modality that sets it apart from the conventional single molecule – single target approach.
- This double blind RCT trial studied the efficacy of combination YIV-906 + sorafenib (SORA) versus sorafenib monotherapy.
- The primary endpoint was PFS. There is numerical improvement in: mPFS 4.1 mo vs 2.3 mo, mTTP 5.59 mo vs 2.33 mo, OS 14.3 vs 7.5 mo, ORR 2.4% vs 0%, and DCR 58.5% vs 47.4%.
- YIV-906 + SORA arm patients demonstrated greater treatment exposure duration and continuation, thus remaining on treatment longer.
- Considering fulfilling the efficacy objective, and safety results, YIV-906 + sorafenib provides a potential benefit for HBV(+) HCC patients and merits further exploration.

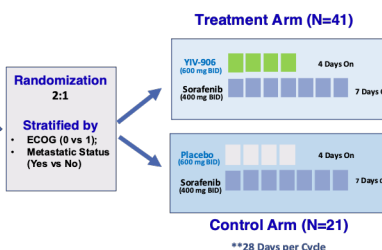
Methods

Study Design

- International, Double Blinded Randomized Placebo Control

Patient Population

- Advanced HCC
- Treatment Naïve
- HBV(+)
- Child Pugh A
- BCLC Stage B or C
- ECOG ≤1
- Age ≥ 18
- Adequate organ functions

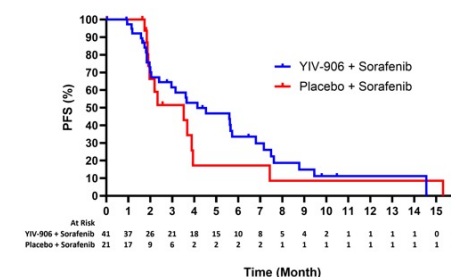


- **Primary Endpoint:** PFS
- **Secondary Endpoints:** TTP, OS, ORR, DCR, Safety and Tolerability, QoL, PK (CN sites only)
- **Exploratory Study:** biomarkers

Results

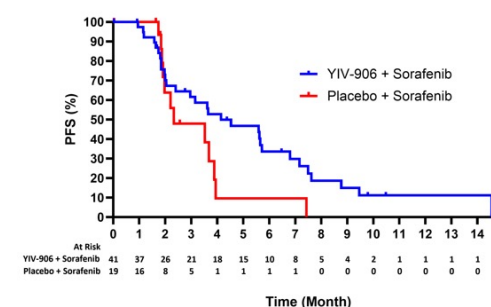
PFS (RECIST 1.1)

ITT Analysis Set



Parameter	YIV-906 arm (n=41)	Placebo arm (n=21)
Events, n (%)	30 (73)	13 (62)
mPFS, mo (95% CI)	4.1(2.0 – 5.7)	3.5(1.9 – 3.9)
Stratified HR (95% CI)	0.72 (95% CI: 0.35 - 1.48) p-value 0.371	

PPS Analysis Set



Parameter	YIV-906 arm (n=41)	Placebo arm (n=19)
Events, n (%)	30 (73)	12 (63)
mPFS, mo (95% CI)	4.1(2.0 – 5.7)	2.3(1.9 – 3.9)
Stratified HR (95% CI)	0.50 (95% CI: 0.24 - 1.05) p-value 0.063	

Baseline Characteristics

	Statistic	YIV-906 + Sorafenib (N=41)	Placebo + Sorafenib (N=21)	Total (N=62)
Age (years)	n	41	21	62
	Mean (SD)	60.1 (13.7)	60.9 (9.8)	60.4 (12.5)
	Median	57.0	62.0	62.0
	Min	28	38	28
	Max	85	75	85
Sex	n (%)			
Male		32 (78.0)	15 (71.4)	47 (75.8)
Female		9 (22.0)	6 (28.6)	15 (24.2)
Ethnicity	n (%)			
Asian		41 (100.0)	21 (100.0)	62 (100.0)
Non-Asian		0	0	0
BCLC Stage	n (%)			
A		13 (31.7)	6 (28.6)	19 (30.6)
B		27 (65.9)	15 (71.4)	42 (67.7)
C		1 (2.4)	0	1 (1.6)
Child-Pugh Score	n (%)			
CLASS A (5-6)		41 (100.0)	21 (100.0)	62 (100.0)
5		29 (70.7)	14 (66.7)	43 (69.4)
6		12 (29.3)	6 (28.6)	18 (29.0)
α-fetoprotein (ng/ml)	n (%)			
<400		23 (56.1)	12 (57.1)	35 (56.5)
≥400		18 (43.9)	9 (42.9)	27 (43.5)

Secondary Endpoints

Outcome	ITT	PPS
	YIV-906 arm (n=41)	Placebo arm (n=19)
OS, mo (95% CI)	14.3 (8.2, 18.8)	8.0 (4.6, 12.1)
Stratified HR (95% CI)	0.97 (0.51 – 1.84) p-value 0.917	
TTP, mo (95% CI)	5.59 (3.15 – 7.49)	2.33 (1.97 – NA)
Stratified HR (95% CI)	0.709 (0.333 – 1.507) p-value 0.3701	
ORR(%)	0	0
• ORR, n (%)	0 (0.1, 12.9)	0 (0.1, 12.9)
• 95% CI	2.4* (-2.3, 7.2), p value 0.513	2.4 (-2.3, 7.2), p value 0.513
• Difference in ORR, 95% CI, p Value		
DCR(%)	24 (58.5)	9 (47.4)
• DCR, n (%)	24 (58.5)	9 (47.4)
• 95% CI	10.9 (-15.2, 37.1), p value 0.363	11.2 (-15.9, 38.2), p value 0.336
• Difference in DCR, 95% CI, p Value		

stat improvement in ORR assessed per mRECIST, with the difference between the YIV-906 arm and the placebo arm of 19.4% (95% CI: 3.4%, 35.4%), (p=0.033)

Adverse Events

Duration of Treatment	YIV-906 arm (n=41)	Placebo arm (n=21)	TEAEs in ≥15% of Patients in Either Group, n (%)	Any	Gr 3/4	Any	Gr 3/4
Median Duration of Study Treatment (Days, range)	63 (4-251)	33.5 (5-435)	PPE	58.5	17.1	55.0	15
Median Duration of Sorafenib Treatment (Days, range)	108 (5-435)	58.5 (5-435)	Diarrhea	51.2	12.2	25	5
			Blood bilirubin increased	34.1	2.4	15	0
			ALT increased	26.5	4.8	15	5
			AST increased	24.4	0	5	0
			Hypertension	24.4	14.6	20	20
			Weight decreased	24.4	0	20	5
			Anemia	22.0	7.3	5	0
			AST increased	19.5	7.3	15	0
			ALP increased	19.5	4.8	15	5
			Platelet count decreased	17.1	2.4	5	5
			Phytosis	17.1	0	0	0
			Decreased appetite	14.6	0	25	5
			Rash	14.6	2.4	20	0
			Vomiting	2.4	0	15	0

Patient Disposition

