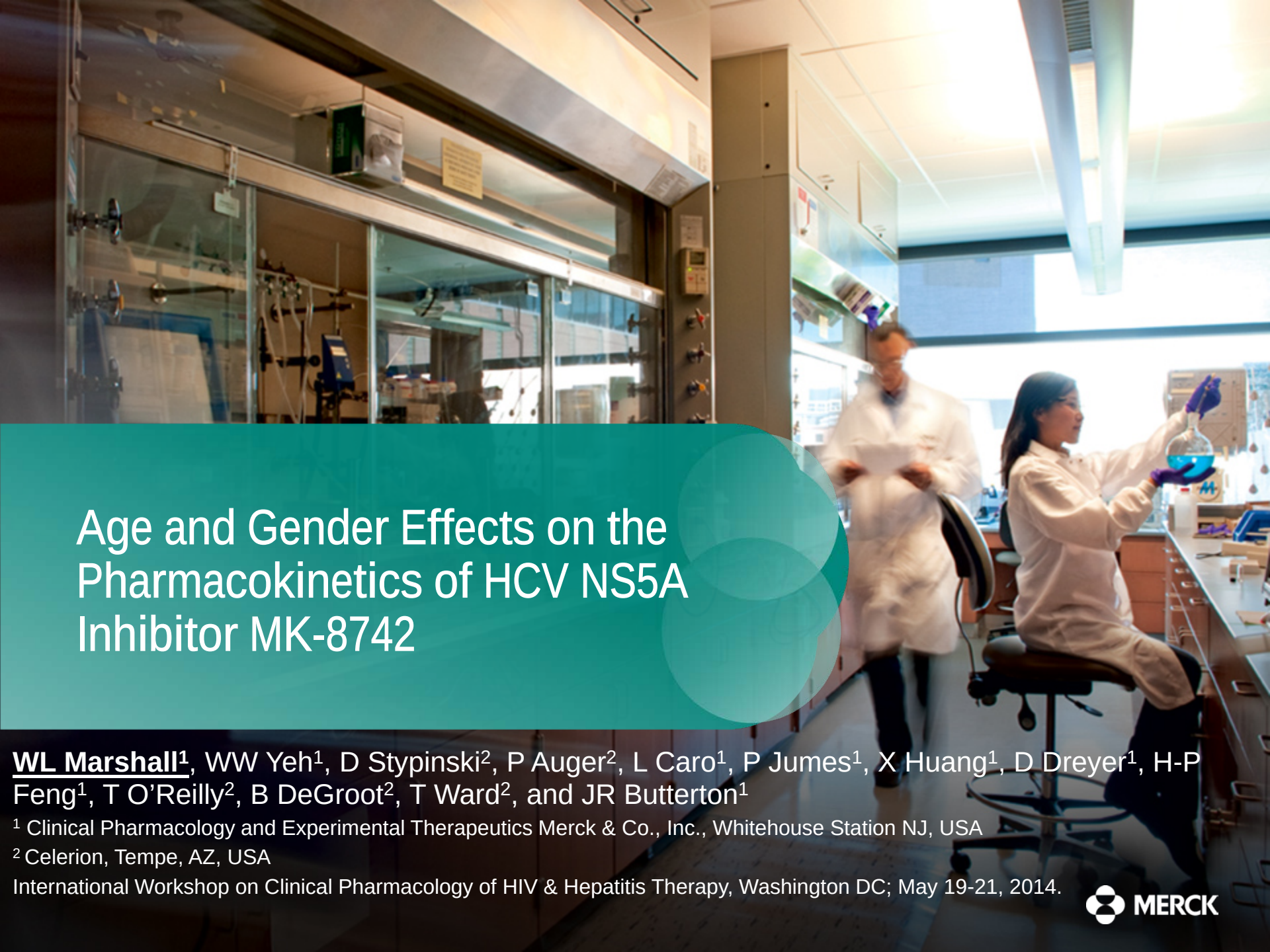

Age and Gender Effects on the Pharmacokinetics of HCV NS5A Inhibitor MK-8742

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Background and Study Design

- MK-8742 is a potent, once-daily inhibitor of the hepatitis C virus (HCV) nonstructural protein NS5A that is currently in Phase 3 development for use in combination with MK-5172, an HCV NS3/4A protease inhibitor, for the treatment of chronic HCV infection.
- First comparison of MK-8742 PK between healthy elderly males and females, providing preliminary safety data for this study population age group in HCV-infected patients, as well as the first comparison between healthy young males and healthy elderly subjects
- Double-blind, placebo-controlled, randomized, single-dose study
  - Panel A and Panel B consisted of 14 healthy elderly male (age 65-78 years) and 14 healthy elderly female (age 65-80 years) subjects, respectively. Twelve (12) subjects per panel were randomized to receive active drug (MK-8742 100 mg x1), and 2 subjects per panel received matching placebo.
  - Panel C consisted of 8 young (age 22-45 years) male subjects with 6 receiving active drug and 2 received placebo.

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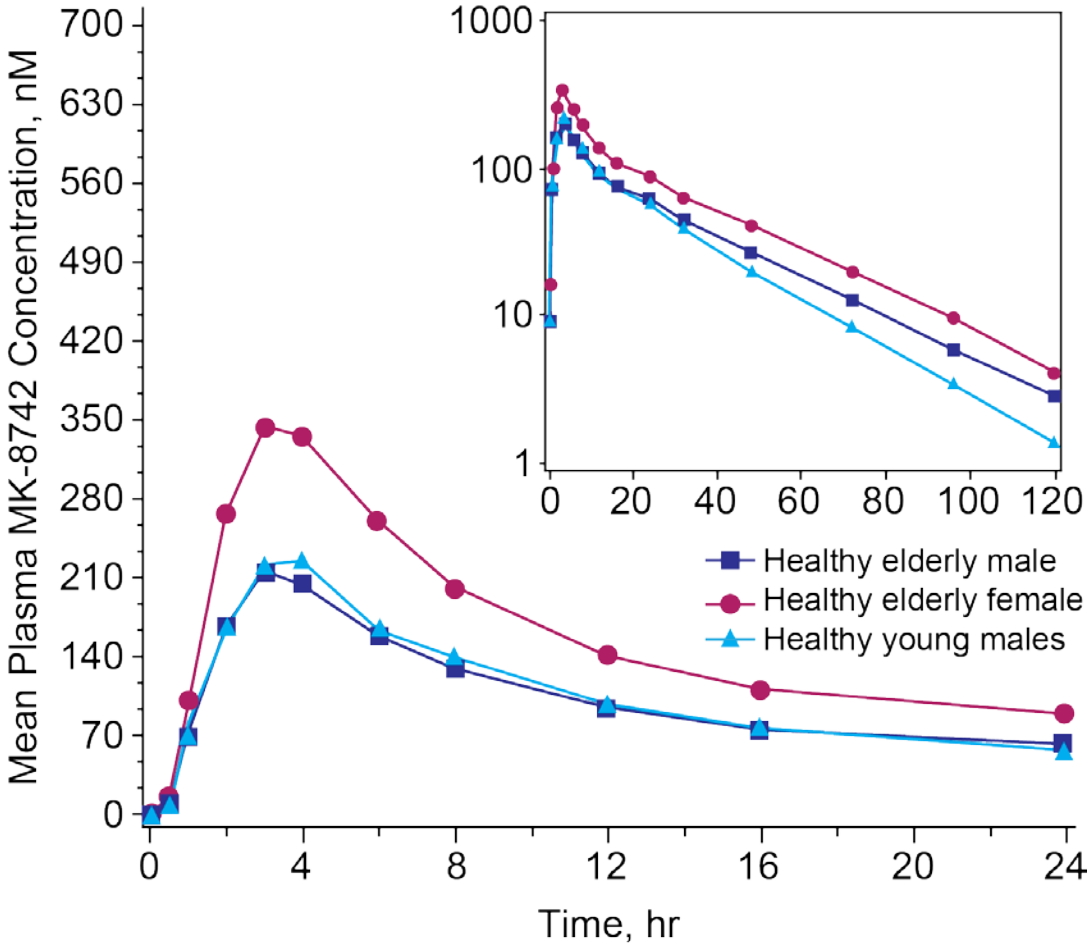
Arithmetic Mean Plasma Concentration-Time Profiles of MK-8742 After a Single Dose of 100 mg MK-8742 in Healthy Elderly Male, Healthy Elderly Female, and Healthy Young Male Subjects



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Statistical Comparison Summary of Plasma PK of MK-8742 After a Single Dose of 100 mg MK-8742 in Healthy Elderly Male vs. Elderly Female Subjects

[redacted]

Statistical Comparison Summary of Plasma PK of MK-8742 After a Single Dose of 100 mg MK-8742 in Healthy Elderly Male vs. Young Male Subjects

[redacted]

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Conclusions

- The mean plasma AUC0-∞ following a single 100 mg dose of MK-8742 in healthy elderly female subjects is approximately 70% greater than that observed in healthy elderly male subjects.
- The mean plasma AUC0-∞ is approximately 33% greater in healthy elderly female subjects when adjusted for weight, suggesting that the observed gender effect may partially be explained by the difference in body weight.
- A single-dose 100 mg administration of MK-8742 results in similar AUC0-∞ between healthy elderly male and healthy young male subjects, suggesting no effect of age on the PK of MK-8742.
- A single administration of 100 mg MK-8742 was generally well tolerated in the healthy elderly male and elderly female subjects and healthy young male subjects

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Clinical Program for MK-5172/MK-8742

Current Phase 2b & Phase 2b/3 Special Population Studies

Study	Geno-type	Fibrosis Staging	Treatment History	Co-Morbidity	Regimen (Weeks)
C-WORTHy	1	± Cirrhosis	TN, PR-PTF	±HIV	8, 12, 18, ±RBV
C-SCAPE	2, 4-6	Non-cirrhotic	TN	--	12, ±RBV
C-SALVAGE	1	± Cirrhosis	DAA/PR-PTF	--	12, + RBV
C-SURFER	1	Non-cirrhotic	TN	CKD 4-5	12, no RBV
C-SALT	1, 4-6	Cirrhotic (CP-B)	TN, PR-PTF	--	12, no RBV

Current Phase 3 Program

Study	Geno-type	Fibrosis Staging	Treatment History	Co-Morbidity	Regimen (Weeks)
C-EDGE TN	1, 4-6	± Cirrhosis	TN	--	12, no RBV
C-EDGE CO-INFXN	1, 4-6	± Cirrhosis	TN	HIV	12, no RBV
C-EDGE CO-STAR	1, 4-6	± Cirrhosis	TN	OST, ±HIV	12, no RBV
C-EDGE TE	1, 4-6	± Cirrhosis	PR-PTF	±HIV	12 or 16, ±RBV

TN: Treatment Naïve | PR-PTF: Failed Prior Peg-IFN/RBV | PI/PR-PTF: Failed Prior DAA/PR | CKD 4-5: Chronic Kidney Disease Grades 4-5 (incl. Hemodialysis) | OST = Opiate Substitution Therapy | RBV = Ribavirin

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