# CENTER FOR DRUG EVALUATION AND RESEARCH

**APPLICATION NUMBER:** 

205834Orig1s000

**OTHER REVIEW(S)** 



### **PMR/PMC Development Template**

This template should be completed by the PMR/PMC Development Coordinator and included for <u>each</u> PMR/PMC in the Action Package.

NDA/BLA # Product Name:		NDA 205834 Ledipasvir/sofosbuvir		
PMR/PMC Description:	Submi	t an interim study report and datasets for GS-US	S-334-0122	
PMR/PMC Schedule Mile	estones:	Final Protocol Submission: Study/Trial Completion: Final Report Submission: Other:	completed 07/31/2017 07/31/2018	
requirement. Check ty  Unmet need Life-threatenin Long-term data Only feasible t	ng condit a needed to conduce experience alation af	tion I ct post-approval ce indicates safety	instead of a pre-approval	
Who Achieve a Sus Subjects with Chro 337-0102 (ION-1),	stained ' onic Hep GS-US	248-0122, entitled, "A Long Term Follow-up Re Virologic Response to Treatment in Gilead-Sponatitis C Infection", with the three year follow-up-337-0109 (ION-2), GS-US-337-0108 (ION-3) ssess the durability of treatment response, hence	onsored Trials in up data from: GS-US-will collect the follow-	

2. Describe the particular review issue and the goal of the study/clinical trial. If the study/clinical trial is a FDAAA PMR, describe the risk. If the FDAAA PMR is created post-approval, describe the "new safety information."



An interim study report from the ongoing trial GS-US-248-0122, entitled, "A Long Term Follow-up Registry for Subjects Who Achieve a Sustained Virologic Response to Treatment in Gilead-Sponsored Trials in Subjects with Chronic Hepatitis C Infection", with the three year follow-up data from: GS-US-337-0102 (ION-1), GS-US-337-0109 (ION-2), GS-US-337-0108 (ION-3) will provide long-term data on the durability of treatment response.

The primary objective of this registry is to assess the durability of sustained virologic response (SVR) following treatment in a Gilead-sponsored trial. The secondary objectives of this registry are to determine whether subsequent detection of HCV RNA in subjects who relapse following SVR, represents the re-emergence of pre-existing virus, the development of resistance mutations, or whether it is due to re-infection; to assess clinical progression of liver disease; and to screen for the development of hepatocellular carcinoma (HCC). Once enrolled, subjects will be followed for up to 3 years. Visits will occur at Baseline and then at Weeks 24, 48, 72, 96, 120 and 144. At each visit, subjects will have blood drawn for plasma HCV RNA quantification, liver function tests, platelets, coagulation test,  $\alpha$ -fetoprotein, and a quality of life survey will be completed. If HCV RNA is detected, the subject will have a repeat blood sample drawn for confirmation. If HCV RNA is confirmed the subject will be withdrawn from the Registry. If the confirmed HCV RNA is > 1000 IU/ml, viral sequence analysis will be performed.

The listed three trials are the Phase 3 registrational trials supporting dosing and administration recommendations.

3. If the study/clinical trial is a **PMR**, check the applicable regulation. If not a PMR, skip to 4. – Which regulation? Accelerated Approval (subpart H/E) Animal Efficacy Rule Pediatric Research Equity Act FDAAA required safety study/clinical trial If the PMR is a FDAAA safety study/clinical trial, does it: (check all that apply) Assess a known serious risk related to the use of the drug? Assess signals of serious risk related to the use of the drug? Identify an unexpected serious risk when available data indicate the potential for a serious risk? If the PMR is a FDAAA safety study/clinical trial, will it be conducted as: Analysis of spontaneous postmarketing adverse events? Do not select the above study/clinical trial type if: such an analysis will not be sufficient to assess or identify a serious risk Analysis using pharmacovigilance system? Do not select the above study/clinical trial type if: the new pharmacovigilance system that the FDA is required to establish under section 505(k)(3) has not yet been established and is thus not sufficient to assess this known serious risk, or has been established but is nevertheless not sufficient to assess



or identify a serious risk

	Study: all other investigations, such as investigations in humans that are not clinical trials as defined below (e.g., observational epidemiologic studies), animal studies, and laboratory experiments?  *Do not select the above study type if: a study will not be sufficient to identify or assess a serious risk
	Clinical trial: any prospective investigation in which the sponsor or investigator determines the method of assigning investigational product or other interventions to one or more human subjects?
4.	What type of study or clinical trial is required or agreed upon (describe and check type below)? If the study or trial will be performed in a subpopulation, list here.
	Submit an interim study report from the ongoing study GS-US-248-0122, entitled, "A Long Term Follow-up Registry for Subjects Who Achieve a Sustained Virologic Response to Treatment in Gilead-Sponsored Trials in Subjects with Chronic Hepatitis C Infection", with the three year follow-up data from: GS-US-337-0102 (ION-1), GS-US-337-0109 (ION-2), GS-US-337-0108 (ION-3)
	Required
	<ul> <li>☐ Observational pharmacoepidemiologic study</li> <li>☐ Registry studies</li> <li>☐ Primary safety study or clinical trial</li> </ul>
	Pharmacogenetic or pharmacogenomic study or clinical trial if required to further assess safety  Thorough Q-T clinical trial
	Nonclinical (animal) safety study (e.g., carcinogenicity, reproductive toxicology)
	<ul> <li>□ Nonclinical study (laboratory resistance, receptor affinity, quality study related to safety)</li> <li>□ Pharmacokinetic studies or clinical trials</li> </ul>
	☐ Drug interaction or bioavailability studies or clinical trials ☐ Dosing trials
	Continuation of Question 4
	Additional data or analysis required for a previously submitted or expected study/clinical trial (provide explanation)
	Meta-analysis or pooled analysis of previous studies/clinical trials
	☐ Immunogenicity as a marker of safety ☐ Other (provide explanation)
	A
	Agreed upon:  Quality study without a safety endpoint (e.g., manufacturing, stability)
	Pharmacoepidemiologic study not related to safe drug use (e.g., natural history of disease, background
	rates of adverse events)  Clinical trials primarily designed to further define efficacy (e.g., in another condition, different disease
	severity, or subgroup) that are NOT required under Subpart H/E  Dose-response study or clinical trial performed for effectiveness
	Nonclinical study, not safety-related (specify)
	Other

5. Is the PMR/PMC clear, feasible, and appropriate?



<ul> <li>☑ Does the study/clinical trial meet criteria for PMRs or PMCs?</li> <li>☑ Are the objectives clear from the description of the PMR/PMC?</li> <li>☐ Has the applicant adequately justified the choice of schedule milestone dates?</li> <li>☐ Has the applicant had sufficient time to review the PMRs/PMCs, ask questions, determine feasibility, and contribute to the development process?</li> </ul>
Check if this form describes a FDAAA PMR that is a randomized controlled clinical trial
If so, does the clinical trial meet the following criteria?
<ul> <li>☐ There is a significant question about the public health risks of an approved drug</li> <li>☐ There is not enough existing information to assess these risks</li> <li>☐ Information cannot be gained through a different kind of investigation</li> <li>☐ The trial will be appropriately designed to answer question about a drug's efficacy and safety, and</li> <li>☐ The trial will emphasize risk minimization for participants as the protocol is developed</li> </ul>
PMR/PMC Development Coordinator:  This PMR/PMC has been reviewed for clarity and consistency, and is necessary to further refine the safety, efficacy, or optimal use of a drug, or to ensure consistency and reliability of drug quality.
(signature line for BLAs)



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