STUDY OF PF-07321332 IN HEALTHY PARTICIPANTS

ClinicalTrials.gov Identifier: NCT04756531

Recruitment Status : Recruiting
First Posted : February 16, 2021
Last Update Posted : July 2, 2021

See **Contacts and Locations**

Sponsor:
Pfizer

Information provided by (Responsible Party):
Pfizer

Study Description

Go to

Brief Summary:
A Phase 1, double blind, sponsor open, single and multiple ascending dose study to evaluate safety, tolerability and pharmacokinetics of PF-07321332 in healthy participants.

Condition or disease	Intervention/treatment	Phase
Healthy Participants	Drug: PF-07321332 Dose 1 Drug: PF-07321332 Dose 2 Drug: PF-07321332 Dose 3	Phase 1

	Drug: PF-07321332 Dose 4 Drug: Placebo	

Detailed Description:
Combined 3-part study. Part-1: Single Ascending dose study. Part-2: Multiple Ascending Dose Study Part-3: Optional relative bioavailability and food effect study. Part-1 and 2 are double blind sponsor open and Part-3 is open label cross over study.

Study Design

Go to

Study Type :
Interventional (Clinical Trial)

Estimated Enrollment :
78 participants

Allocation:
Randomized

Intervention Model:
Crossover Assignment

Masking:
Double (Participant, Investigator)

Primary Purpose:
Other

Official Title:
A PHASE 1, RANDOMIZED, DOUBLE-BLIND, SPONSOR-OPEN, PLACEBO CONTROLLED, SINGLE- AND MULTIPLE-DOSE ESCALATION STUDY TO EVALUATE THE SAFETY, TOLERABILITY, AND PHARMACOKINETICS OF PF 07321332 IN HEALTHY ADULT PARTICIPANTS

Actual Study Start Date :
February 11, 2021

Estimated Primary Completion Date :
September 2, 2021

Estimated Study Completion Date :
September 2, 2021

Arms and Interventions

Go to

Arm	Intervention/treatment
Experimental: PF-07321332 Dose 1 Dose level 1 of PF-07321332	Drug: PF-07321332 Dose 1 PF-07321332 Dose 1

Arm	Intervention/treatment
Active Comparator: PF-07321332 Dose 2 Dose level 2 of PF-07321332	Drug: PF-07321332 Dose 2 PF-07321332 Dose 2
Active Comparator: PF-07321332 Dose 3 Dose level 3 of PF-07321332	Drug: PF-07321332 Dose 3 PF-07321332 Dose 3
Active Comparator: PF-07321332 Dose 4 Dose level 4 of PF-07321332	Drug: PF-07321332 Dose 4 PF-07321332 Dose 4
Placebo Comparator: Placebo Placebo arm	Drug: Placebo Placebo

Outcome Measures

Go to

Primary Outcome Measures :

1. Number of participants with Treatment Emergent Adverse Events (TEAEs) in single ascending dose (SAD) [Time Frame: Day 1 to Day 4]

   An Adverse Event (AE) is any untoward medical occurrence in a patient or clinical study participant, temporally associated with the use of study intervention, whether or not considered related to the study intervention. A serious adverse event (SAE) is defined as any untoward medical occurrence at any dose that results in death; is life threatening; requires inpatient hospitalization or prolongation of existing hospitalization; results in persistent disability/incapacity; results in congenital anomaly/birth defect. AEs include both SAEs and AEs. TEAEs are AEs that occur following the start of treatment or AEs increasing in severity during treatment

2. Number of Participants With Clinically Significant Change From Baseline in Vital Signs in SAD [Time Frame: Day 1 to Day 4]
3. Number of Participants With Laboratory Abnormalities in SAD [Time Frame: Day 1 to Day 4]
4. Number of Participants with Clinically Significant Change From Baseline in Electrocardiogram (ECG) Findings in SAD [Time Frame: Day 1 to Day 4]

   Criteria for clinically significant changes in ECG (12-lead) are defined as: a postdose QTc interval increase by ≥30 msec from the baseline and is >450 msec; or an absolute QTc value is ≥500 msec for any scheduled ECG

5. Number of participants with TEAEs in multiple ascending dose (MAD) [Time Frame: Day 1 to Day 12]

An AE is any untoward medical occurrence in a patient or clinical study participant, temporally associated with the use of study intervention, whether or not considered related to the study intervention. An SAE is defined as any untoward medical occurrence at any dose that results in death; is life threatening; requires inpatient hospitalization or prolongation of existing hospitalization; results in persistent disability/incapacity; results in congenital anomaly/birth defect. AEs include both SAEs and AEs. TEAEs are AEs that occur following the start of treatment or AEs increasing in severity during treatment

6. Number of Participants With Clinically Significant Change From Baseline in Vital Signs in MAD [Time Frame: Day 1 to Day 12]

   Vital signs evaluation includes: supine systolic and diastolic blood pressure (BP), temperature, respiratory rate and pulse rate.

7. Number of Participants With Laboratory Abnormalities in MAD [Time Frame: Day 1 to Day 12]
8. Number of Participants with Clinically Significant Change From Baseline in ECGs Findings in MAD [Time Frame: Day 1 to Day 12]

   Criteria for clinically significant changes in ECG (12-lead) are defined as: a postdose QTc interval increase by ≥30 msec from the baseline and is >450 msec; or an absolute QTc value is ≥500 msec for any scheduled ECG

Secondary Outcome Measures ℹ :

1. Maximum Plasma Concentration (Cmax) in SAD [Time Frame: Day 1 to Day 4]

   The maximum observed plasma concentration (Cmax) is estimated based on the plasma concentrations

2. Dose Normalized Maximum Plasma Concentration (Cmax[dn]) in SAD [Time Frame: Day 1 to Day 4]

   Cmax(dn) = Cmax / dose.

3. Time for Cmax (Tmax) in SAD [Time Frame: Day 1 to Day 4]

   Tmax was summarized by dosing regimen. It was observed directly from data as time of first occurrence.

4. Area Under the Concentration-Time Profile From Time 0 to the Time of the Last Quantifiable Concentration (AUClast) in SAD [Time Frame: Day 1 to Day 4]

   AUClast is summarized by dosing regimen and determined by linear/log trapezoidal method.

5. Dose Normalized Area Under the Concentration-Time Profile From Time 0 to the Time of the Last Quantifiable Concentration (AUClast[dn]) in SAD [Time Frame: Day 1 to Day 4]

   AUClast /dose

6. Area Under the Plasma Concentration-Time Profile From Time 0 Extrapolated to Infinite Time (AUCinf) in SAD [Time Frame: Day 1 to Day 4]

   AUCinf = Area under the plasma concentration versus time curve (AUC) from time 0 (pre-dose) to extrapolated infinite time (0-inf). It is obtained from AUC (0-t) plus AUC (t-inf).

7. Dose Normalized Area Under the Plasma Concentration-Time Profile From Time 0 Extrapolated to Infinite Time (AUCinf[dn]) in SAD [Time Frame: Day 1 to Day 4]

   AUClast(dn) = AUClast / dose.

8. Terminal Elimination Half-Life (t½) in SAD [Time Frame: Day 1 to Day 4]

   t1/2 is summarized by dosing regimen . It is determined by loge(2)/kel, where kel is the terminal phase rate constant calculated by a linear regression of the log linear concentration time curve. Only those data points judged to describe the terminal log linear decline is used in the regression.

9. Apparent Clearance (CL/F) in SAD [Time Frame: Day 1 to Day 4]

   CL/F is a measure of the rate at which a drug is metabolized or eliminated by normal biological processes. Clearance obtained after oral dose (apparent oral clearance) is influenced by the fraction of the dose absorbed. Calculated as Dose/AUCinf. Drug clearance is a quantitative measure of the rate at which a drug substance is removed from the blood.

10. Apparent Volume of Distribution (Vz/F) in SAD [Time Frame: Day 1 to Day 4]

    Vz/F is defined as the theoretical volume in which the total amount of drug would need to be uniformly distributed to produce the desired plasma concentration of a drug. Vz/F is influenced by the fraction absorbed.

11. Cmax in MAD-Day 1 [Time Frame: Day 1 Pre-dose (0 hours) to 12 hours]

    Observed Cmax is estimated based on the plasma concentrations

12. Cmax(dn) in MAD-Day 1 [Time Frame: Day 1 Pre-dose (0 hours) to 12 hours]

    Cmax/dose is summarized by dosing regimen.

13. Cmax in MAD-Day 5 [Time Frame: Day 5 Pre-dose (0 hours) to 12 hours]

    Observed Cmax is estimated based on the plasma concentrations

14. Dose Normalized Maximum Plasma Concentration (Cmax[dn]) in MAD-Day 5 [Time Frame: Day 5 Pre-dose (0 hours) to 12 hours]

    Cmax/dose is summarized by dosing regimen.

15. Cmax in MAD-Day 10 [Time Frame: Day 10 (0h) Pre-dose (0 hours) to 12 hours]

    Observed Cmax is estimated based on the plasma concentrations

16. Dose Normalized Maximum Plasma Concentration (Cmax[dn]) in MAD-Day 10 [Time Frame: Day 10 Pre-dose (0 hours) to 12 hours]

    Cmax/dose is summarized by dosing regimen.

17. Time for Cmax (Tmax) in MAD-Day 1 [Time Frame: Day 1 Pre-dose (0 hours) to 12 hours]

    Tmax was summarized by dosing regimen. It was observed directly from data as time of first occurrence.

18. Tmax in MAD-Day 5 [Time Frame: Day 5 Pre-dose (0 hours) to 12 hours]

    Tmax was summarized by dosing regimen. It was observed directly from data as time of first occurrence.

19. Tmax in MAD-Day 10 [Time Frame: Day 10 Pre-dose (0 hours) to 12 hours]

    Tmax was summarized by dosing regimen. It was observed directly from data as time of first occurrence.

20. Area Under the Plasma Concentration-Time Profile From Time Zero To End of Dosing Interval (AUCtau) in MAD-Day 1 [Time Frame: Day 1 Pre-dose (0 hours) to 12 hours]

    AUCtau is summarized by dosing regimen and period. Dosing interval is the interval tau between administration of doses of drug. In this study, the dosing interval is 8 hours for three times daily (TID) dosing and 12 hours for twice daily (BID) dosing. It is determined by linear/log trapezoidal method.

21. Dose Normalized Area Under the Plasma Concentration-Time Profile From Time Zero To End of Dosing Interval (AUCtau[dn]) in MAD-Day 1 [Time Frame: Day 1 Pre-dose (0 hours) to 12 hours]

    AUCtau/dose is summarized by dosing regimen and period. Dosing interval is the interval tau between administration of doses of drug. In this study, the dosing interval is 8 hours for TID dosing and 12 hours for BID dosing. I

22. AUCtau in MAD-Day 5 [Time Frame: Day 5 Pre-dose (0 hours) to 12 hours]

AUCtau is summarized by dosing regimen and period. Dosing interval is the interval tau between administration of doses of drug. In this study, the dosing interval is 8 hours for TID dosing and 12 hours for BID dosing. It is determined by linear/log trapezoidal method.

23. AUCtau(dn) in MAD-Day 5 [Time Frame: Day 5 Pre-dose (0 hours) to 12 hours]

    AUCtau/dose is summarized by dosing regimen and period. Dosing interval is the interval tau between administration of doses of drug. In this study, the dosing interval is 8 hours for TID dosing and 12 hours for BID dosing. I

24. AUCtau in MAD-Day 10 [Time Frame: Day 10 Pre-dose (0 hours) to 12 hours]

    AUCtau is summarized by dosing regimen and period. Dosing interval is the interval tau between administration of doses of drug. In this study, the dosing interval is 8 hours for TID dosing and 12 hours for BID dosing. It is determined by linear/log trapezoidal method.

25. Dose Normalized Area Under the Plasma Concentration-Time Profile From Time Zero To End of Dosing Interval (AUCtau[dn]) in MAD-Day 10 [Time Frame: Day 10 Pre-dose (0 hours) to 12 hours]

    AUCtau/dose is summarized by dosing regimen and period. Dosing interval is the interval tau between administration of doses of drug. In this study, the dosing interval is 8 hours for TID dosing and 12 hours for BID dosing. I

26. Lowest Concentration Observed During the Dosing Interval tau (Cmin) in MAD-Day 5 [Time Frame: Day 5 Pre-dose (0 hours) to 12 hours]

    Cmin is observed directly from data. It is summarized by dosing regimen. Dosing interval is the interval tau between administration of doses of drug. In this study, the dosing interval tau is 8 hours for TID dosing and 12 hours for BID dosing.

27. Cmin in MAD-Day 10 [Time Frame: Day 10 Pre-dose (0 hours) to 12 hours]

    Cmin is observed directly from data. It is summarized by dosing regimen. Dosing interval is the interval tau between administration of doses of drug. In this study, the dosing interval tau is 8 hours for TID dosing and 12 hours for BID dosing.

28. t½ in MAD-Day 10 [Time Frame: Day 10 Pre dose (0 hours) to Day 12 (48 hours post dose)]

    t1/2 is summarized by dosing regimen . It is determined by loge(2)/kel, where kel is the terminal phase rate constant calculated by a linear regression of the log linear concentration time curve. Only those data points judged to describe the terminal log linear decline is used in the regression.

29. Vz/F in MAD-Day 10 [Time Frame: Day 10 Pre-dose (0 hours) to 12 hours]

Vz/F is defined as the theoretical volume in which the total amount of drug would need to be uniformly distributed to produce the desired plasma concentration of a drug. VZ/F after oral dose is influenced by the fraction absorbed.

30. Peak Trough Ratio (PTR) in MAD-Day 5 [Time Frame: Day 5 Pre-dose (0 hours) to 12 hours]

    PTR = Cmax,ss / Cmin,ss, where ss means 'at steady state'. It is summarized by dosing regimen .

31. PTR in MAD-Day 10 [Time Frame: Day 10 Pre-dose (0 hours) to 12 hours]

    PTR = Cmax,ss / Cmin,ss, where ss means 'at steady state'. It is summarized by dosing regimen .

32. Observed Accumulation Ratio Based on AUC (Rac) in MAD-Day 5 [Time Frame: Day 5 Pre-dose (0 hours) to 12 hours]

    Rac = AUCtau,ss / AUCtau,sd, where ss means 'at steady state' and sd 'single dose'. In this study, Rac = AUCtau(Day 5) / AUCtau(Day 1). Rac is summarized by dosing regimen.

33. Rac in MAD-Day 10 [Time Frame: Day 10 Pre-dose (0 hours) to 12 hours]

    Rac = AUCtau,ss / AUCtau,sd, where ss means 'at steady state' and sd 'single dose'. In this study, Rac = AUCtau(Day 10) / AUCtau(Day 1). Rac is summarized by dosing regimen.

34. Observed Accumulation Ratio Based on Cmax (Rac,Cmax) in MAD-Day 5 [Time Frame: Day 5 Pre-dose (0 hours) to 12 hours]

    Rac,Cmax = Cmax,ss / Cmax,sd, where ss means 'at steady state' and sd 'single dose'. In this study, Rac,Cmax = Cmax(Day5) / Cmax(Day 1). Rac,Cmax is summarized by dosing regimen.

35. Rac,Cmax in MAD-Day 10 [Time Frame: Day 10 Pre-dose (0 hours) to 12 hours]

    Rac,Cmax = Cmax,ss / Cmax,sd, where ss means 'at steady state' and sd 'single dose'. In this study, Rac,Cmax = Cmax(Day10) / Cmax(Day 1). Rac,Cmax is summarized by dosing regimen.

36. CL/F in MAD-Day 5 [Time Frame: Day 5 Pre-dose (0 hours) to 12 hours]

    CL/F is a measure of the rate at which a drug is metabolized or eliminated by normal biological processes. calculated as Dose/AUC tau. Dosing interval (tau) is 8 h for TID dosing and 12 h for BID dosing.

37. CL/F in MAD-Day 10 [Time Frame: Day 10 Pre-dose (0 hours) to 12 hours]

    CL/F is a measure of the rate at which a drug is metabolized or eliminated by normal biological processes. calculated as Dose/AUC tau. Dosing interval (tau) is 8 h for TID dosing and 12 h for BID dosing.

38. Cumulative Amount of Drug Recovered Unchanged in Urine From Time 0 to the Dosing Interval tau Hours Post-Dose (Aetau) in MAD-Day 10 [Time Frame: Day 10 Pre-dose (0 hours) to 12 hours]

    Sum of (urine volume × urine concentration) for each collection over the dosing interval tau. Dosing interval (tau) is 8h for TID and 12 h for BID dosing.

39. Percentage of Dose Recovered Unchanged in Urine From Time 0 to the Dosing Interval tau Hours Post-Dose (Aetau%) in MAD-Day 10 [Time Frame: Day 10 Pre-dose (0 hours) to 12 hours]

    Aetau% = Aetau / Dose * 100. Aetau% is summarized by dosing regimen. Dosing interval (tau) is 8h for TID and 12 h for BID dosing.

40. Renal Clearance (Clr) in MAD-Day 10 [Time Frame: Day 10 Pre-dose (0 hours) to 12 hours]

    Renal clearance is calculated as cumulative amount of drug recovered unchanged in urine during the dosing interval (Aetau) divided by area under the plasma concentration time-curve from time zero to end of dosing interval (AUCtau), where dosing interval is 8 hours for TID dosing and 12 hours for BID dosing.

Eligibility Criteria

Go to

Information from the National Library of Medicine

Choosing to participate in a study is an important personal decision. Talk with your doctor and family members or friends about deciding to join a study. To learn more about this study, you or your doctor may contact the study research staff using the contacts provided below. For general information, Learn About Clinical Studies.

Ages Eligible for Study:

18 Years to 60 Years (Adult)

Sexes Eligible for Study:

All

Accepts Healthy Volunteers:

Yes

Criteria

Inclusion Criteria:

- Healthy male or female subjects between ages of 18-60 years
- Body Mass Index (BMI) of 17.5 to 30.5kg/m2; and a total body weight >50kg (110lbs)
- (Optional) Japanese subjects who have four Japanese biologic grandparents born in Japan

Exclusion Criteria:

- Evidence or history of clinically significant hematological, renal, endocrine, pulmonary, gastrointestinal, cardiovascular, hepatic, psychiatric, neurologic, or allergic disease (including drug allergies, but excluding untreated, asymptomatic, seasonal allergies at time of dosing)
- Any condition possibly affecting drug absorption (eg, gastrectomy, cholecystectomy, intestinal resection).
- Positive test result for SARS-CoV-2 infection at the time of screening or Day-1.
- Have received COVID-19 vaccine within 7 days before screening or have received only one of the 2 required doses of COVID-19 vaccine
- Use of tobacco or nicotine containing products in excess of the equivalents of 5 cigarettes per day or 2 chews of tobacco per day

Contacts and Locations

Go to

Information from the National Library of Medicine

To learn more about this study, you or your doctor may contact the study research staff using the contact information provided by the sponsor.

Please refer to this study by its ClinicalTrials.gov identifier (NCT number): ***NCT04756531***

Contacts

Contact: Pfizer CT.gov Call Center 1-800-718-1021 ClinicalTrials.gov_Inquiries@pfizer.com

Locations

United States, Connecticut

New Haven Clinical Research Unit **Recruiting**
New Haven, Connecticut, United States, 06511

Belgium

Brussels Clinical Research Unit **Recruiting**
Brussels, Bruxelles-capitale, Région DE, Belgium, B-1070

Sponsors and Collaborators

Pfizer

Investigators

Study Director: Pfizer CT.gov Call Center Pfizer

More Information

Go to

Additional Information:

To obtain contact information for a study center near you, click here.

Responsible Party:

Pfizer

ClinicalTrials.gov Identifier:

NCT04756531 History of Changes

Other Study ID Numbers:

C4671001

2020-006073-30 (EudraCT Number)

First Posted:

February 16, 2021 Key Record Dates

Last Update Posted:

July 2, 2021

Last Verified:

June 2021

Individual Participant Data (IPD) Sharing Statement:

Plan to Share IPD:

No

Plan Description:

Pfizer will provide access to individual de-identified participant data and related study documents (e.g. protocol, Statistical Analysis Plan (SAP), Clinical Study Report (CSR)) upon request from qualified researchers, and subject to certain criteria, conditions, and exceptions. Further details on Pfizer's data sharing criteria and process for requesting access can be found at: https://www.pfizer.com/science/clinical_trials/trial_data_and_results/data_requests.

Studies a U.S. FDA-regulated Drug Product:

Yes

Studies a U.S. FDA-regulated Device Product:

No