Code for Summary:

```
prefix = """I want you to extract Summary from a given input of text. I will give you input in TEXT.
TEXT:
Summary:
"""


inp=input()
prompt=prefix+" Prompt: "+inp
completion = openai.Completion.create(
    engine=model_engine,
    prompt=prompt,
    max_tokens=1024,
    n=1,
    temperature=0.6,
)

response = completion.choices[0].text
print("GPT-3: ", response)
```

Code for Summary with few shots:

```
prefix = """I want you to extract Summary and Key Takeaways from a given input of text. I will give you input in TEXT. Following are few shot learning examples c
TEXT:
Press Release(Input):
Third approved indication for SKYRIZI (risankizumab-rzaa) is supported by safety and efficacy data from two induction and one maintenance clinical trials evaluat
- As early as week 4 in the induction studies, clinical response and clinical remission were achieved by significantly more subjects treated with SKYRIZI versus
- Crohn's disease is chronic, systemic and progressive; most patients experience unpredictable symptoms that have a significant impact on daily life5-8
NORTH CHICAGO, Ill., June 17, 2022 /PRNewswire/ -- AbbVie (NYSE: ABBV) today announced that the U.S. Food and Drug Administration (FDA) has approved SKYRIZI® (ri
Experience the interactive Multimedia News Release here: https://www.multivu.com/players/English/8978352-abbvie-fda-crohns-disease/
"We are proud to offer the first new treatment option in six years for moderately to severely active CD, which may provide patients with a meaningful level of er
The dosing regimen for SKYRIZI for the treatment of CD is 600 mg administered by intravenous infusion over at least one hour at week 0, week 4, and week 8, follc
Endoscopic and Clinical Outcomes1-4
The co-primary endpoints of the clinical trials were endoscopic response and clinical remission. In the 12-week induction studies, ADVANCE and MOTIVATE, a signif
In the 52-week maintenance trial, FORTIFY, a significantly greater proportion of patients achieved the co-primary endpoints of endoscopic response and clinical r
"In both the induction and maintenance clinical trials, a significantly greater number of adult patients saw few or no symptoms and a meaningful reduction of vis
Summary:
AbbVie announced approval of Skyrizi in CD (3 IV induction doses of 600 mg; 360mg SC maintenance dosing with OBI Q8W)
Key Takeaways:
• On June 17, AbbVie announced FDA approval of Skyrizi for the treatment of adults with moderate to severe Crohn's Disease
• Dosing regimen: 3 IV induction doses of 600mg Q4W, followed by 360mg SC maintenance dose with an On-body injector (OBI) at W12 and Q8W thereafter
• FDA review of 180 mg self-administered SC maintenance dose option ongoing
• Approval is supported by Phase 3 pivotal studies – ADVANCE, MOTIVATE, and FORTIFY. FORTIFY study includes a sub-study evaluating an OBI
```

GL ALERTS

Example 1:

Summary:

AbbVie announced that the U.S. Food and Drug Administration (FDA) has approved SKYRIZI® (risankizumab-rzaa) as the first and only specific interleukin-23 (IL-23) inhibitor for the treatment of adults with moderately to severely active Crohn's disease (CD). SKYRIZI demonstrated significant improvements in endoscopic response and clinical remission compared to placebo, as both an induction and maintenance therapy. In two induction and one maintenance clinical trials, a significantly greater proportion of patients treated with SKYRIZI achieved endoscopic response and clinical remission compared to placebo.

Summary By Few Shots:

AbbVie announced approval of Skyrizi in CD (3 IV induction doses of 600 mg; 360mg SC maintenance dosing with OBI Q8W) which demonstrated significant improvements in endoscopic response and clinical remission in the 12-week induction studies, ADVANCE and MOTIVATE, and the 52-week maintenance trial, FORTIFY, compared to placebo.

Example 2:

Summary:

AbbVie has submitted applications for a new indication for upadacitinib (RINVOQ) to the U.S. Food and Drug Administration (FDA) and European Medicines Agency (EMA) for the treatment of adult patients with moderately to severely active Crohn's disease. The applications are supported by three Phase 3 clinical trials, which demonstrated that significantly more patients treated with upadacitinib achieved the co-primary endpoints of clinical remission and endoscopic response compared to placebo. Safety results were generally consistent with the known safety profile of upadacitinib, with no new safety risks observed.

Summary By Few Shots:

AbbVie submitted applications for a new indication to the U.S. Food and Drug Administration (FDA) and European Medicines Agency (EMA) for upadacitinib for the treatment of adult patients with moderately to severely active Crohn's disease. The applications are supported by data from three Phase 3 clinical trials, including two induction studies (U-EXCEED & U-EXCEL) and one maintenance study (U-ENDURE).

Example 3:

Summary:

On September 15th, AbbVie's Skyrizi was granted a positive CHMP opinion for the treatment of Crohn's Disease (CD) for both 1L and 2L use, following US approval in June 2022. Skyrizi is a next-generation IL-23 inhibitor, and is expected to compete primarily with Stelara in CD. The filing for EC approval in

November 2021 was supported by Phase 3 pivotal studies – ADVANCE, MOTIVATE, and FORTIFY, which includes a sub-study evaluating an OBI. Skyrizi has shown strong efficacy in maintenance vs. Stelara, with a Δ of 12% vs 17%. The CHMP positive opinion is based on results from three Phase 3 studies: two for induction and one for maintenance. If approved, risankizumab will be the first specific IL-23 inhibitor for the treatment of Crohn's disease in the European Union (EU), with the European Commission decision expected in the fourth quarter of 2022.

Summary By Few Shots:

AbbVie announced a positive CHMP opinion for Skyrizi in Crohn's Disease, for both 1L and 2L use, following US approval in June 2022. The dosing regimen is 3 IV induction doses of 600mg Q4W, followed by 360mg SC maintenance dose with the cartridge at W12 and Q8W thereafter. Key Takeaways:

Example 4:

Summary:

Eli Lilly and Company announced today that mirikizumab met the primary endpoint of clinical remission and all key secondary endpoints at one year in LUCENT-2, a Phase 3 maintenance study evaluating the efficacy and safety of mirikizumab for the treatment of patients with moderately-to-severely active ulcerative colitis. The results from the study showed a statistically higher proportion of patients who achieved clinical remission with mirikizumab compared to placebo, as well as significantly higher proportions of patients achieving other key secondary endpoints such as endoscopic remission, corticosteroid-free remission, resolution or near-resolution of bowel urgency, and improved endoscopic histologic intestinal inflammation. The safety profile of mirikizumab was consistent with that of the previous studies in UC and other studies within the anti-IL-23p19 antibody class.

Summary By Few Shots:

Eli Lilly and Company announced that mirikizumab met the primary endpoint of clinical remission and all key secondary endpoints at one year in its Phase 3 maintenance study, LUCENT-2. The study was conducted on patients who achieved clinical response in the 12-week induction study, LUCENT-1. Mirikizumab demonstrated statistically higher proportions of patients achieving clinical remission, endoscopic remission, corticosteroid-free remission, resolution or near-resolution of bowel urgency, improvement in endoscopic histologic intestinal inflammation and maintenance of remission, and greater reduction from baseline in bowel urgency symptoms at one year compared to placebo.

Example 5:

Summary:

AbbVie announced positive results from two Phase 3 induction studies showing both doses of risankizumab (600 mg and 1200 mg) met both primary endpoints of clinical remission and endoscopic response at week 12 in adult patients with moderate to severe Crohn's disease. Clinical remission was measured by CDAI (Crohn's Disease Activity Index) and PRO-2 (two-component patient-reported outcome). A significantly greater proportion of patients treated with risankizumab achieved clinical remission and endoscopic response at week 12 compared to placebo. Symptom improvement was also observed as early as week 4.

Summary By Few Shots:

AbbVie announced positive results from two Phase 3 induction studies, ADVANCE and MOTIVATE, showing both doses of risankizumab (600 mg and 1200 mg) met both primary endpoints of clinical remission and endoscopic response at week 12 in adult patients with moderate to severe Crohn's disease.

NS

Example 1:

Summary:

Fabre-Kramer Pharmaceuticals, Inc. has submitted an NDA Amendment to the Food and Drug Administration for their novel antidepressant EXXUA™ for treatment of Major Depressive Disorder. EXXUA's unique mechanism of targeted single serotonin (5HT) 1a receptor agonism relieves depressive symptoms without significant side effects, such as sexual dysfunction and weight gain. This new class of antidepressant has the potential to benefit millions of MDD patients by providing them with a wide range of effective options for treatment.

Summary by few shots:

Fabre-Kramer Pharmaceuticals, Inc. has submitted an NDA Amendment to the FDA for its novel mechanism antidepressant EXXUA™ (gepirone ER) for the treatment of Major Depressive Disorder (MDD). EXXUA's unique mechanism of targeted single serotonin (5HT) 1a receptor agonism relieves depressive symptoms without significant side effects, such as sexual dysfunction and weight gain.

Example 2:

Summary:

NLS Pharmaceutics Ltd. has launched a Named Patient Program (NPP) providing access to Mazindol ER, an alternative therapeutic option for idiopathic hypersomnia (IH), a serious sleep disorder with no approved treatment options in Europe. The NPP was launched in the United Kingdom and is expected to expand into other countries over the coming weeks and months. Mazindol ER was granted Orphan Drug Designation (ODD) in Europe and the US for the treatment of IH.

Summary by few shots:

NLS Pharmaceutics Ltd. has announced the launch of a Paid for Named Patient Program (NPP) for patients suffering from idiopathic hypersomnia (IH). The NPP will provide access to Mazindol ER for the treatment of IH where this medication would not otherwise be available. The NPP was launched in the UK and is expected to expand into other countries over the coming weeks and months. Additionally, Mazindol ER has received Orphan Drug Designation (ODD) from the US Food and Drug Administration (FDA) and European Medicines Agency (EMA) for the treatment of IH.

Example 3:

Summary:

NLS Pharmaceutics Ltd. announced new in vitro study results demonstrating the agonist effect of mazindol ER at the Orexin-2 Receptor (OX2R). This is a significant add-on therapeutic option in narcolepsy type 1 that includes excessive daytime sleepiness and the sudden loss of muscle tone, or cataplexy, when a person is awake. Mazindol ER is an OX2R partial agonist that was developed to

address the loss of orexin signaling in NT1. The Phase 3 program for Quilience (mazindol ER) is currently on track to commence in mid-2023.

Summary by few shots:

NLS Pharmaceutics Ltd. announced new in vitro study results demonstrating the agonist effect of mazindol ER at the Orexin-2 Receptor (OX2R). The study showed strong OX2R partial agonist activity by cellular and nuclear receptor functional assays, indicating that mazindol ER may be an effective treatment for narcolepsy type 1. The Phase 3 program for Quilience (mazindol ER) is planned to commence in mid- 2023.

Example 4:

Summary:

Relmada Therapeutics has announced the top-line results from its Phase 3 RELIANCE I trial for REL-1017 as an adjunctive treatment for Major Depressive Disorder (MDD). The trial did not achieve its primary endpoint of a statistically significant improvement in depression symptoms compared to placebo as measured by the Montgomery-Asberg Depression Rating Scale (MADRS) on Day 28. However, a clinically meaningful difference of 2.2 points on the MADRS, as well as a statistically significant difference in the response rate, with a response rate of 27.2% on placebo vs 39.8% in the REL1017 arm ($p<0.05$) was observed. In a post-hoc analysis of RELIANCE 1 (301 Study) excluding the same two high enrolling centers that showed implausible placebo response in both REL-1017 studies, a 4.1 point difference in the MADRS was observed ($p<0.02$). REL-1017 demonstrated favorable tolerability and safety in the study. Relmada continues to enroll patients in RELIANCE II, the second ongoing Phase 3, two-arm, placebo-controlled, pivotal study evaluating REL-1017 as a potential adjunctive treatment for MDD.

Summary by few shots:

Relmada Therapeutics announced the top-line results from the Phase 3 RELIANCE I trial for REL-1017 as an adjunctive treatment for Major Depressive Disorder (MDD). The trial did not achieve its primary endpoint of a statistically significant improvement in depression symptoms compared to placebo as measured by the Montgomery-Asberg Depression Rating Scale (MADRS) on Day 28. However, the REL-1017 treatment arm showed a clinically meaningful difference of 2.2 points on the MADRS and a statistically significant difference in the response rate, with a response rate of 27.2% on placebo vs 39.8% in the REL1017 arm. The REL-1017 treatment arm also showed favorable tolerability and safety with no opioid-like effects, no withdrawal effects, and no psychotomimetic effects.

Example 5:

Summary:

Sage Therapeutics and Biogen have completed the rolling submission of a New Drug Application (NDA) to the U.S. Food and Drug Administration (FDA) for zuranolone, an investigational drug being evaluated as a rapid-acting, once-daily, 14-day oral short course treatment in adults with MDD and PPD. Zuranolone has been granted Fast Track Designation and Breakthrough Therapy Designation by the FDA for MDD, and Fast Track Designation for PPD. The submission includes data from the LANDSCAPE and NEST development programs for zuranolone.

Summary by few shots:

Sage Therapeutics and Biogen have completed the rolling submission of a New Drug Application (NDA) to the US FDA for Zuranolone, an investigational drug being evaluated as a rapid-acting, once-daily, 14-day oral short course treatment in adults with major depressive disorder (MDD) and postpartum depression (PPD).

Oncology

Example 1:

Summary:

Guardant Health Inc. has announced the availability of Guardant Reveal, a blood test that detects minimal residual disease in patients with solid tumors without the need for tissue biopsy. The test has been made available for patients with colorectal, breast and lung cancers, and is able to detect circulating tumor DNA in blood to identify patients with a higher risk of recurrence and who may benefit from additional therapy. The test is more effective than current standard-of-care tools such as CEA tests. It can be initiated as soon as three weeks after surgery.

Summary by few shots:

Guardant Health has announced the expansion of the use of Guardant Reveal liquid biopsy test for the detection of residual and recurrent disease in patients with early-stage breast and lung cancers. The test is a tissue-free and blood-only liquid biopsy assay that is designed to detect circulating tumor DNA (ctDNA) without the need for a tissue biopsy to identify patients with minimal residual disease (MRD) and predict disease recurrence more effectively than current standard-of-care tools.

Example 2:

Summary:

Illumina, in partnership with Merck, has launched a research test to identify key variants critical for cancer development and progression. The test, called the TruSight™ Oncology 500 HRD, utilizes Illumina NGS technology and validated HRD technology from Myriad Genetics to accurately detect genomic instability and analyze more than 500 genes simultaneously. The test is available globally, excluding the United States and Japan, and is expected to begin shipping in August. Additionally, work is ongoing to develop a new HRD companion diagnostic test for the EU and the UK.

Summary by few shots:

Illumina announced the launch of a research test, codeveloped with Merck, to add assessment of a new genomic signature to the distributed, market leading TruSight™ Oncology 500 assay. This Research Use Only TruSight Oncology 500 HRD test is a next-generation sequencing (NGS)–based assay that harnesses the power of Illumina NGS technology and validated HRD technology from Myriad Genetics to accurately detect genomic instability and analyze more than 500 genes simultaneously, including those relevant to HRD status.

Example 3:

Summary:

Novartis announced that the US Food and Drug Administration (FDA) granted accelerated approval for Tafinlar® (dabrafenib) + Mekinist® (trametinib) for the treatment of adult and pediatric patients 6 years of age and older with unresectable or metastatic solid tumors with BRAF V600E mutation. The approval

was based on results from Phase II ROAR and NCI-MATCH studies demonstrating overall response rates up to 80% in patients with BRAF V600E solid tumors, including high- and low-grade glioma, biliary tract cancer and certain gynecological and gastrointestinal cancers. Tafinlar + Mekinist is the first and only BRAF/MEK inhibitor to be approved with a tumor-agnostic indication for solid tumors carrying the BRAF V600E mutation.

Summary by few shots:

Novartis announced that US FDA granted accelerated approval for Tafinlar + Mekinist for the treatment of adult and pediatric patients 6 years of age and older with unresectable or metastatic solid tumors with BRAF V600E mutation who have progressed following prior treatment and have no satisfactory alternative treatment options.

Example 4:

Summary:

Foundation Medicine, Inc. has received approval from the U.S. Food and Drug Administration (FDA) for FoundationOne CDx to be used as a companion diagnostic to identify patients with Microsatellite Instability High (MSI-H) status solid tumors who may be appropriate for treatment with Merck's KEYTRUDA® (pembrolizumab). This is the third tumor agnostic companion diagnostic approval for FoundationOne CDx, which now has 26 companion diagnostic claims and two group claims across 27 targeted therapies.

Summary by few shots:

Foundation Medicine's FoundationOne CDx (F1CDx) has been approved by the FDA as a companion diagnostic to identify patients with Microsatellite Instability High (MSI-H) status solid tumors who may be appropriate for treatment with Merck's KEYTRUDA® (pembrolizumab). It is the first and only FDA-approved companion diagnostic to aid in identifying patients with MSI-H solid tumors for whom treatment with KEYTRUDA may be appropriate.

Example 5:

Summary:

The FDA has approved KEYTRUDA, Merck's anti-PD-1 therapy, as a single agent for the treatment of patients with advanced endometrial carcinoma that is microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR). The approval is based on new data from Cohorts D and K of the KEYNOTE-158 trial, which showed an objective response rate of 46%, including a complete response rate of 12% and a partial response rate of 33%. Immune-mediated adverse reactions and infusion-related reactions can occur with KEYTRUDA, and it can cause fetal harm when administered to a pregnant woman. It is also indicated in combination with LENVIMA (lenvatinib) for the treatment of patients with advanced endometrial carcinoma that is not MSI-H or dMMR. Adverse reactions may occur with LENVIMA, and it can cause fetal harm when administered to a pregnant woman.

Summary by few shots:

Merck announced that the U.S. Food and Drug Administration (FDA) has approved KEYTRUDA, Merck's anti-PD-1 therapy, as a single agent for the treatment of patients with advanced endometrial carcinoma that is microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR). The approval is based on new data from Cohorts D and K of the KEYNOTE-158 trial, which demonstrated an objective response rate of 46% for patients receiving KEYTRUDA.

Prompt to extract Summary and Key Takeaways (One-Shot Examples)

Example 1:

Summary:

AbbVie announced positive results from the Phase 3 maintenance study, FORTIFY, showing risankizumab 360 mg (subcutaneous) administered every eight weeks achieved the co-primary endpoints of endoscopic response and clinical remission at one year in adult patients with moderate to severe Crohn's disease. Results also showed that risankizumab 180 mg (SC; administered every eight weeks) achieved the co-primary endpoints in the U.S. analysis plan, but not in the OUS analysis plan.

Key Takeaways:

● Risankizumab 360mg SC Q8W achieved the co-primary endpoints of endoscopic response and clinical remission at one year in adult patients with moderate to severe Crohn's Disease

● Risankizumab 180mg SC Q8W achieved the co-primary endpoints in the U.S. analysis plan, but not in the OUS analysis plan

● Safety results were consistent with the known safety profile of risankizumab, with no new safety risks observed

Example 2:

Summary:

The PRAC safety committee has started a review of the safety of Janus Kinase (JAK) inhibitors used to treat inflammatory disorders after results from study A3921133 showed an increased risk of major cardiovascular problems, cancer, death due to any cause, serious infections and VTE for patients taking Xeljanz for rheumatoid arthritis compared to TNF-alpha inhibitors. Preliminary findings from an observational study involving Olumiant also suggest an increased risk of major cardiovascular problems and VTE.

Key Takeaways:

● Safety review of JAK inhibitors (Xeljanz, Olumiant) started by PRAC due to increased risk of major cardiovascular problems, cancer, death due to any cause, serious infections and VTE in study A3921133

● Increased risk of major cardiovascular problems and cancer observed in Xeljanz after release of additional data from study A3921133

● Preliminary findings from an observational study involving Olumiant suggest an increased risk of major cardiovascular problems and VTE

Example 3:

Summary:

Praxis Precision Medicines reported that the Aria study evaluating the efficacy and safety of PRAX-114 for monotherapy treatment of MDD did not achieve statistical significance on the primary endpoint or any secondary endpoints. As a result, the company will realign its focus to other programs and reduce its workforce, extending its cash runway to 2024.

Key Takeaways:

● Praxis Precision Medicines reported negative results from the Phase 2/3 Aria Study in MDD

● Primary endpoint of change from baseline in HAM-D17 total score at Day 15, and all secondary endpoints, did not achieve statistical significance

● Company will realign its focus to other programs and reduce its workforce, extending its cash runway to 2024.

Example 4:

Summary:

SOPHiA GENETICS announced CE-IVD certification for the analytical functionality supported by its cloud-based SOPHiA DDM™ Platform, an accessory to diagnostic applications. The platform is now IVD-ready to support all applications and modules designed for diagnostic purposes in the European Union and other markets recognizing this certification. The platform has enabled the analysis of one million genomic profiles and is a core platform for healthcare and biopharma industry partners to run their applications and benefit from a regulated environment and decentralized access mode.

Key Takeaways:

● SOPHiA GENETICS has achieved CE-IVD certification for the analytical functionality supported by its cloud-based SOPHiA DDM™ Platform

● Platform is IVD-ready to support all applications and modules designed for diagnostic purposes in the European Union and other markets recognizing this certification

● Platform has facilitated the analysis of one million genomic profiles and provides partners from the healthcare and biopharma industry with a regulated space and decentralized access mode

● CE-IVD certifications demonstrate SOPHiA GENETICS' commitment to delivering accurate and reliable solutions to healthcare institutions