Study Application (Version 1.4)

1.0 General Information

***Enter the full title of your study:**

Role of Glucagon in outpatient colonoscopy? A Prospective Double-Blind randomized controlled trial.

***Enter the study number or study alias**

Glucagon and Colonoscopy.
* This field allows you to enter an abbreviated version of the Study Title to quickly identify this study.

2.0 Add Department(s)

2.1 List departments and/or research programs associated with this study:

Primary Dept?	Department Name
◉	**UCSF** - *138357* - M_MED-GAST-ZSFG

3.0 Assign key study personnel(KSP) access to the study

3.1 *Please add a Principal Investigator for the study:

Aditi, Anupam

Select if applicable

☐ Department Chair ☐ Resident
☑ Fellow

If the Principal Investigator is a Fellow, the name of the Faculty Advisor must be supplied below.

3.2 If applicable, please select the Research Staff personnel:

A) Additional Investigators

Azeem, Nabeel
Other Investigator
Cello, John P, MD
Co-Principal Investigator
Cheng, Alice G
Other Investigator
Kathpalia, Priya
Other Investigator
Kidambi, Trilokesh D
Other Investigator

B) Research Support Staff

Rodas, Alex
Research Assistant

3.3 *Please add a Study Contact:

Aditi, Anupam
Cello, John P, MD
Rodas, Alex

The Study Contact(s) will receive all important system notifications along with the Principal Investigator. (e.g. The project contact(s) are typically either the Study Coordinator or the Principal Investigator themselves).

3.4 If applicable, please add a Faculty Advisor/Mentor:

Cello, John P, MD

3.5 If applicable, please select the Designated Department Approval(s):

Add the name of the individual authorized to approve and sign off on this protocol from your Department (e.g. the Department Chair or Dean).

4.0 Qualifications of Key Study Personnel

4.1 November, 2015 - NEW Definition of Key Study Personnel and CITI Training Requirements:

UCSF Key Study Personnel include the Principal Investigator, other investigators and research personnel who are directly involved in conducting research with study participants or who are directly involved in using study participants' identifiable private information during the course of the research. Key Personnel also include faculty mentors/advisors who provide direct oversight to Postdoctoral Fellows, Residents and Clinical Fellows serving as PI on the IRB application.

The IRB requires that all Key Study Personnel complete Human Subjects Protection Training through CITI prior to approval of a new study, or a modification in which KSP are being added. More information on the CITI training requirement can be found on our website.

List the study responsibilities and qualifications of any individuals who qualify as Key Study Personnel (KSP) at UCSF and affiliated sites ONLY by clicking the "Add a new row" button. This information is required and your application will be considered incomplete without it.

KSP Name	Description of Study Responsibilities	Qualifications
Cello, John P, MD	Co-Principle Investigator	Professor of Medicine and Surgery
Aditi, Anupam	Co-Principle Investigator --consent patients --perform colonoscopy	Fellow, Gastroenterology
Rodas, Alex	Clinical Trial Coordinator	Certified Research Coordinator

Azeem, Nabeel	Investigator --consent patients --perform colonoscopy	Fellow, Gastroenterology
Kathpalia, Priya	Invesigator --consent patients --perform colonoscopy	Fellow, Gastroenterology
Cheng, Alice G	Investigator --consent patients --perform colonoscopy	Fellow, Gastroenterology
Kidambi, Trilokesh D	Investigator --consent patients --perform colonoscopy	Fellow, Gastroenterology

5.0 Initial Screening Questions - Updated 9/13

(Note: You must answer every question on this page to proceed).

If you are converting to the new form, check questions 5.4, 5.6, 5.7, 5.8 and 5.10 before saving and continuing to the next section.

5.1 * Application type:

- (•) Full Committee
- ( ) Expedited
- ( ) Exempt

5.2 * Risk level (Help Text updated 9/13):

- (•) Minimal risk
- ( ) Greater than minimal risk

5.3 * Subject contact:

- (•) Yes (including phone, email or web contact)
- ( ) No (limited to medical records review, biological specimen analysis, and/or data analysis)

5.4 * Funding (past or present):

- ( ) Funded or will be funded (external sponsor, gift, program or specific internal or departmental funds)
- (•) Unfunded (no specific funds earmarked for this project)
- ( ) Unfunded student project

5.5 * The Principal Investigator and/or one or more of the key study personnel has financial interests related to this study:

( ) Yes (•) No

If **Yes**, the Conflict of Interest Advisory Committee (COIAC) office may contact you for additional information.

5.6 * This is an investigator-initiated study:

◉ Yes ○ No

5.7 * This study ONLY involves retrospective records review and/or identifiable biospecimen analysis:

○ Yes ◉ No

5.8 * This is a clinical trial:

◉ Yes ○ No

Clinical Trial Registration
"NCT" number for this trial:

NCT 02078726

5.9 * This is a multicenter study:

○ Yes ◉ No

5.10 * This application involves the study of unapproved or approved drugs, devices, biologics or in vitro diagnostics:

◉ Yes ○ No

5.11 * This application involves a Humanitarian Use Device:

◉ No
○ Yes, and it includes a research component
○ Yes, and it involves clinical care ONLY

5.12 * This study involves human stem cells (including iPS cells and adult stem cells), gametes or embryos:

◉ No
○ Yes, and requires CHR and GESCR review
○ Yes, and requires GESCR review, but NOT CHR review

5.13 * This is a CIRB study (e.g. the NCI CIRB will be the IRB of record):

○ Yes ◉ No

5.14 * This application includes a request to rely on another IRB (other than NCI CIRB):

○ Yes ◉ No

Note: If this request is approved, the CHR will **NOT** review and approve this study. Another institution will be the IRB of record.

6.0 Sites

6.1 Institutions (check all that apply):

- [ ] UCSF
- [ ] China Basin
- [ ] Helen Diller Family Comprehensive Cancer Center
- [ ] Mission Bay
- [ ] Mount Zion
- [x] San Francisco General Hospital (SFGH)
- [ ] SF VA Medical Center (SF VAMC)
- [ ] Blood Centers of the Pacific (BCP)
- [ ] Blood Systems Research Institute (BSRI)
- [ ] Fresno (Community Medical Center)
- [ ] Gallo
- [ ] Gladstone
- [ ] Institute on Aging (IOA)
- [ ] Jewish Home
- [ ] SF Dept of Public Health (DPH)

6.2 Check all the other types of sites not affiliated with UCSF with which you are cooperating or collaborating on this project (Help Text updated 9/13):

- [ ] Other UC Campus
- [ ] Other institution
- [ ] Other community-based site
- [ ] Foreign Country

List the foreign country/ies:

6.3 Check any research programs this study is associated with:

- [ ] Cancer Center
- [ ] Center for AIDS Prevention Sciences (CAPS)
- [ ] Global Health Sciences
- [ ] Immune Tolerance Network (ITN)
- [ ] Neurosciences Clinical Research Unit (NCRU)
- [ ] Osher Center
- [ ] Positive Health Program

7.0 Study Design

7.1 * Study design (Help Text updated 9/13):

Glucagon transiently decreases peristalsis of smooth muscle in the gastrointestinal tract. It is widely used by radiologists to improve diagnostic yields of upper and lower GI barium contrast examinations.[1,2,3] Glucagon is also routinely administered intravenously for all endoscopic retrograde cholangiopancreatography (ERCP) throughout the United States to facilitate canulation of the duodenal papilla and sphincterotomy. Glucagon has been used at the dose of 1-3 mg intravenously by Dr. John Cello in over 5000 ERCP examinations. However, the role of glucagon in facilitating colonoscopy remains unanswered and is not considered "routine". Several studies have evaluated the effect of glucagon on colonoscopy with varying results.[4-7] No large scale randomized controlled trial has been performed to conclusively establish the effect of routine glucagon administration prior to colonoscopy. The investigators plan to carry out a randomized, double blind, placebo controlled trial that studies key parameters of a colonoscopy such as cecal intubation time, withdrawal time, total procedure time, adenoma detection rate, endoscopist's assessment of the difficulty of the procedure, patient comfort, and patient's willingness to undergo a repeat colonoscopy.

7.2 If this is a clinical trial, check the applicable phase(s) (Help Text updated 9/13):

- ☐ Phase I
- ☐ Phase II
- ☐ Phase III
- ☑ Phase IV

8.0 Scientific Considerations

8.1 Hypothesis (Help Text updated 9/13):

This study has a hypothesis:

◉ Yes ○ No

If yes, state the hypothesis or hypotheses:

1. Glucagon will produce a decrease in colonic spasm leading to colonoscopies with improved diagnostic yield (improved adenoma detection rate), faster procedure times, and improved patient and endoscopist experience.

8.2 * List the specific aims:

Identify whether glucagon administration during colonoscopy improves the following:

1. Cecal intubation time (time from anal insertion to reaching the cecum as noted by demonstrating the appendiceal orifice).
2. Colonoscope withdrawal time (time from withdrawing colonoscope from cecum to anus).
3. Total procedure time
4. Adenoma detection rate (i.e. the total number of polyps and adenomas per patient procedure)
5. Amount of sedatives used
6. Adequacy of visualization (graded by endoscopist)
7. Difficulty in scope manipulation (graded by endoscopist)
8. Presence and severity of spasms (graded by endoscopist)
9. Pain during procedure (graded by patients on the day after procedure)
10. Abdominal fullness (graded by patients on the day after procedure)
11. Acceptance of future colonoscopy (graded by patients on the day after procedure upon discharge from unit)

8.3 Statistical analysis:

Matched student t-test will be used for continuous variables and the Chi-square test will be used for categorical variables. The UCSF Department of Epidemiology and Biostatistics will be involved in the formal statistical analysis.

8.4 If this study has undergone scientific or scholarly review, please indicate which entity performed the review:

- ☐ Cancer Center Protocol Review Committee (PRC) (Full approval is required prior to final CHR approval for cancer-related protocols.)
- ☐ CTSI Clinical Research Center (CRC) advisory committee
- ☑ Departmental scientific review
- ☐ Other:

Specify **Other**:

Department of Gastroenterology Scientific Review

9.0 Background

9.1 Background:

Colonoscopy is the most commonly performed surgical procedure by gastroenterologists in the United States and is most commonly used for the screening, detection and removal of benign polyps, neoplastic polyps and colon cancer. The National Polyp Study demonstrated a significant decrease in the incidence of colorectal cancer following endoscopic removal of polyps detected during screening colonoscopy.[8] Currently, only 50% of Americans at risk for development of colorectal cancer are being screened with a colonoscopy and attempts to increase the rate of screening will be limited by the total number of colonoscopies that are performed daily in the United States.[9] Thus, identifying interventions that decrease the duration of colonoscopy while maintaining its effectiveness in identifying pre-cancerous polyps can lead to a significant clinical impact.

Colonoscopy is commonly complicated by colonic spasms, particularly in individuals consuming a low residue diet, this leading to patient discomfort, longer procedure times, increased use of sedatives and operator fatigue. Glucagon, an antispasmodic agent, has been demonstrated to reduce intraluminal colonic pressure, colonic wave activity and colonic motility index and is routinely administered prior to colonoscopy by some gastroenterologists.[10,11]As mentioned above, intravenous glucagon is routinely used during every ERCP examination throughout the United States of America. However, its effect on duration of colonoscopy, adenoma detection rate, patient comfort and operator fatigue has not been definitively answered. There are four previous studies that have evaluated the use of glucagon during colonoscopy and produced conflicting result.[4-7] Three of these studies were performed prior to 1995 and cannot account for technological improvement leading to improved colonoscope performance. For instance, the first study performed in 1978 took an average of 50 minutes to perform a colonoscopy, almost twice as long as a colonoscopy performed today. Furthermore, each study was limited by small sample sizes (~30 subjects in each study group) and produced conflicting results. One of the studies demonstrated that glucagon decreases total colonoscopy time while the other two studies demonstrated no effect. A recent randomized control trial demonstrated improved cecum insertion time, lower patient pain score and easier scope manipulation with glucagon supplementation but failed to produce a significant clinical impact due to a small sample size (30 subjects in each study group).

We propose to definitively demonstrate the positive effect of glucagon during colonoscopy by performing a placebo-controlled randomized clinical trial involving a large sample size. We aim to evaluate cecum intubation time, total procedure time, adenoma detection rate, degree of spasm, adequacy of visualization, and patient pain score. We will also determine blood glucose level at the end of the procedure to determine the effect of glucagon therapy during colonoscopy. The primary endoscopist for this study, Dr. John Cello, performs or supervises ~15 colonoscopies per week therefore we can expect to enroll at least 300 outpatient subjects over a one-year period.

9.2 Preliminary studies:

There are currently four articles in the literature that studied the role of glucagon during colonoscopy. Two studies demonstrated faster cecum intubation rate and decreased overall procedure time with no change in adenoma detection rate with glucagon therapy while the other two studies demonstrated no effect. All studies were limited by a small sample size and no study determined the effect of glucagon therapy on blood sugar levels at the end of the procedure.

9.3 References:

1. Bertrand, G., Linscheer, W.G., Raheja, K,L., et al. Double-blind evaluation of glucagon and propantheline bromide for hypotonic duodenoscopy. *Am. J. Roentgenol.,* 1977;121:197
2. Miller, R.E., Chernish, S.M., Greenman, G.F., Maglite D,D,T, et al. Hypotonic colon examination with glucagon. *Radiology* 1974; 113: 555
3. Harned, R.K., Stelling C.B., William, S., et al. Glucagon and barium enema exams. *Am. J. Roentgenol.* 1976;126:981
4. Jamal, M.M., Palmer R,C., Harrington D.M., et al. Glucagon facilitates colonoscopy-A double blind study [Abstract]. *Am J Gastroenterol* 1992;87:1323
5. Norfleet, R.G. Premedication for colonoscopy: randomized, double blind study of glucagon versus placebo. *Gastrointest Endosc* 1978;24:164-165
6. Foster G.E., Vellavott K.D., Balfour T.W., Hardcastle J.D. Outpatient flexible fiberoptic sigmoidoscopy, diagnostic yield and the value of glucagon. *Br. J. Surg* 1981;68:463-464

7. Cutler, C.S., Rex, D.K., Hawes, R.H., et al. Does routine intravenous glucagon administration facilitate colonoscopy? *Gastrointestinal Endoscopy* 1995;42(4):346-350
8. Winawer, S.J., Zauber, A.G., Ho, M.N., et al. Prevention of colorectal cancer by colonoscopic polypectomy. *NEJM* 1993;329:1977-1981
9. **Source:** Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data.* Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2010.
10. Chowdhury, A.R., Lorber, S.H. Effect of glucagon and secretin on food or morphine induced motor activity of the distal colon, rectum and anal sphincter. *Am J. Dig. Dis.* 1977;22:775
11. Taylor, I., Duthie, H.L., Cumberland D.C., et al. Glucagon and the colon. *Gut* 1975;16:973
12. Maxwell, C. Sensitivity and accuracy of the visual analog scale and the analysis of analgesic action. *Eur J Clin Pharmacol* 1978;6:15-18
13. Quinding, H., Hagquist S.O. Visual analog scale and the analysis of analgesic action. *Eur J Clin Pharmacol* 1983;24:475-478
14. Hedenbro, J.L., Ekelund, M., Aberg,T., et al. Oral sedation for diagnostic upper endoscopy. *Endosco py* 1991;23:8-10
15. Saunders, B.P., Fukumoto, M., Halligan, S., et al. Patient-administered nitrous oxide/oxygen inhalation provides effective sedation and analgesia for colonoscopy. *Gastrointest Endosc* 1994;40: 418-422
16. Lindblom, A., Jansson, O., Jeppson, B., et al. Nitrous oxide for colonoscopy discomfort: a randomized double-blind study. *Endoscopy* 1994;26:283-286

If you have a separate bibliography, attach it to the submission with your other study documents.

10.0 Sample Size and Eligibility

10.1 Number of subjects that will be enrolled at UCSF and affiliated institutions:

200

10.2 Total number of subjects that will be enrolled at all sites (Help Text updated 9/13):

200

10.3 Estimated number of people that you will need to consent and screen here (but not necessarily enroll) to get the needed subjects:

300

10.4 Explain how and why the number of subjects was chosen (Help Text updated 9/13):

We base our sample size calculation on the results of the recent randomized control trial comparing glucagon versus placebo prior to colonoscopy. In the study, the mean cecum intubation time was 294 seconds in the glucagon group and 370 seconds in the placebo group with a standard deviation of 140 seconds. Using a power of 0.9 and an α of 0.05, a sample size of 67 participants in each study arm will be needed for this study.

10.5 * Eligible age range(s):

- [ ] 0-6 years
- [ ] 7-12 years
- [ ] 13-17 years
- [x] 18+ years

10.6 Inclusion criteria:

Any subject who has already been already cleared for and scheduled to undergo colonoscopy.

10.7 Exclusion criteria:

1) Refusal to give informed consent.
2) Age < 18 or >70.
3) Prior intra-abdominal surgery
4) Diabetes
5) Pheochromocytoma
6) Insulinoma
7) Liver disease (Child-Pugh Score >6)
8) Pregnancy

10.8 There are inclusion or exclusion criteria based on gender, race or ethnicity:

○ Yes ◉ No

If **yes**, please explain the nature and rationale for the restrictions:

11.0 Drugs and Devices

11.1 * Investigational drugs or biologics will be used OR approved drugs or biologics will be studied under this application:

◉ Yes ○ No

11.2 * Investigational medical devices or in vitro diagnostics will be used OR approved medical devices or in vitro diagnostics will be studied under this application:

○ Yes ◉ No

11.3 * A Non-Significant Risk (NSR) determination is being requested for an investigational device:

○ Yes ◉ No

11.4 Verification of IND/IDE numbers: If the sponsor's protocol does not list the IND/IDE number, you must submit documentation from the sponsor or FDA identifying the IND/IDE number for this study. Attach this documentation in the Other Study Documents section of the Initial Review Submission Packet.

12.0 Study Drug Details

12.1 List the drugs or biologics that will be studied:

View Details	Drug Name	FDA Approved	A new drug or a new use of approved drug:	IND Number
⊟	**Trade Drug Name:** GLUCAGON **Generic Drug Name:** GLUCAGON HYDROCHLORIDE **Investigational**	Yes	No	

Drug Name:

Trade Drug Name:	GLUCAGON
Generic Drug Name:	GLUCAGON HYDROCHLORIDE
Investigational Drug Name:	
Identify the name of the manufacturer or source of investigational drug/biologic:	
Is the drug supplied at no cost?	No
Is the Drug FDA Approved:	Yes
Is this a new drug or a new use of an already approved drug	No
Is an IND necessary	No
IND Number	
Who holds the IND:	N/A
IND details:	
If FDA Approved and an IND is not required, Please provide a rationale for exemption:	Glucagon is ralready egularly given by gastroenterologists prior to endoscopic procedures (ERCP,EUS and colonoscopy) to decrease spasms in the GI tract. It's use before colonoscopies is variable amongst gastroenterologists given data in the literature is conflicting regarding its benefits. Given, glucagon's regular use as an indication prior to colonoscopy in the field, we do not feel that glucagon requires an IND.
Are you currently using this IND in another research project?	No
If yes, list the IRB Number(s):	
Will the investigational pharmacy be dispensing?	No
If the source is not a FDA licensed facility, provide details regarding the purity, quality, stability and sterility of the investigational drug/biologic:	

13.0 Other Approvals and Registrations

13.1 * Do any study activities take place on patient care units:

(•) Yes ( ) No

If **Yes**, attach a letter of support for the study from the involved patient care manager(s).

13.2 * Does your protocol involve any radiation exposure to patients/subjects? The UCSF Radiation Safety Committee requires review of your protocol if it includes administration of radiation as part of standard of care OR research exposures:

( ) Yes (•) No

13.3 * This study may generate genetic data that may be broadly shared (e.g. submitted to NIH for Genome-Wide Association Studies (GWAS) in dbGaP, TCGA, etc):

( ) Yes (•) No

13.4 * This study involves administration of vaccines produced using recombinant DNA technologies to human subjects:

○ Yes ◉ No

13.5 * This study involves human gene transfer (NOTE: Requires NIH Recombinant DNA Advisory Committee (RAC) review prior to CHR approval):

○ Yes ◉ No

13.6 This study involves other regulated materials and requires approval and/or authorization from the following regulatory committees:

☐ Institutional Biological Safety Committee (IBC)

Specify BUA #:

☐ Institutional Animal Care and Use Committee (IACUC)

Specify IACUC #:

☐ Radiation Safety Committee

Specify RUA #:

☐ Radioactive Drug Research Committee (RDRC)

Specify RDRC #:

☐ Controlled Substances

14.0 Procedures

14.1 * Procedures/Methods (Help Text updated 9/13)

For clinical research list all study procedures, test and treatments required for this study, including when and how often they will be performed. If there are no clinical procedures, describe the Methods:

1. We will create 400 cards with either glucagon or placebo written on them in a 1:1 distribution. These cards will be shuffled and placed individually into non-descript envelopes. The envelopes will be handed to our research assistant and shuffled again and each envelope will be placed in a larger envelope serially labeled from 1-400.

2. Medical records of patients presenting for a colonoscopy at the SFGH outpatient endoscopy clinic (3D) will be reviewed for inclusion into our study. On the day of the procedure, study coordinators fluent in the patient's primary language will approach the patients prior to any procedural activity. They will be informed about the medication, the proposed study and potential medication side-effects and asked of their willingness to participate in the research study. Any questions the patients may have will be answered by the study coordinators in the patient's primary language. If the patient agrees to be part of the study, he/she will be serially assigned a study number ranging from 1-400. If the patient refuses to participate in the study, they will undergo routine colonoscopy (they may still receive glucagon outside the study since some gastroenterologists routinely prescribes glucagon prior to all colonoscopies).

3. While alone in the Med-Room, nurses will open the envelope with the patient's study number and draw up 1 mg of glucagon or 1 mL of NS in a covered syringe preventing visualization of syringe content. Glucagon is reconstituted in 1mL of normal saline therefore it will be impossible to identify patient randomization even if the syringe content is visualized.

4. The patient will be given routine intravenous procedural sedation and one minute prior to the start of the colonoscopy, the nurse will be instructed to deliver the study drug.

5. The nursing staff will record, as per standard procedure during colonoscopy, the following: cecum intubation time, colonoscope withdrawal time, total procedure time, use of sedatives for the procedure. The endoscopist will rate the difficulty in scope manipulation, adequacy of visualization and the severity of spasms experienced during the colonoscopy. Dr. Aditi will review the pathology results and records adenoma detection rate for each subject.

6. The patient will be discharged home according to discharge criteria already established in the outpatient GI endoscopy suite. They will be provided a questionnaire and a pre-addressed envelope prior to discharge.

7. The following day, patients will by asked by mail contact to rate pain, abdominal fullness, and willingness to accept a future colonoscopy if clinically indicated and return their questionnaire in the pre-addressed envelope provided. These will be done according to the enclosed questionnaire sheets.

If you have a procedure table, attach it to the submission with your other study documents.

14.2 Interviews, questionnaires, and/or surveys will be administered or focus groups will be conducted:

(•) Yes ( ) No

List any standard instruments used for this study:

Please refer to attached Patient and Endoscopist questionnaire. Both questionnaires utilize a visual analog scale to gauge patient and endoscopist response. We will use a 100mm visual analog scale and the distance from the left endpoint will be taken as the response value. This technique has been validated and previously used for endoscopic studies.[12-16] These forms will be translated into both Spanish and Chinese.

Attach any non-standard instruments at the end of the application.

14.3 Conduct of study procedures or tests off-site by non-UCSF personnel:

( ) Yes (•) No

If yes, explain:

14.4 Sharing of experimental research test results with subjects or their care providers:

( ) Yes (•) No

If yes, explain:

14.5 * Specimen collection for future research and/or specimen repository/bank administration:

( ) Yes (•) No

14.6 Time commitment (per visit and in total):

Potential study subjects will be given enough time to review and ask questions regarding the informed consent form (30 minutes to 1 hr). Actual colonoscopic procedures vary from 30 to 45 minutes. Answering of questionnaires will take aproximately 10 to 20 minutes. Total time commitment will range between 70 minutes to 135 minutes.

14.7 Locations:

- SFGH Outpatient Endoscopy Unit: The patients will be consented on the day of the procedure. This process will take about 10 additional minutes of time. Longer time will be allotted if the patient requires more time for further explanation.

- The day following the procedure, patients will fill out their questionnaire and mail the responses back using a self-addressed envelope.

14.8 Describe the resources in place to conduct this study in a way that assures protection of the rights and welfare of participants:

Approximately ~100-125 patients safely undergo upper endoscopy and colonsocopy at the SFGH endoscopy center per week. Previously established protocols such as secure storage of all patient data, physician-nurse-patient time out, post-procedure recovery protocol and clinic follow-up for all patient necessitating furher gastroenterology care already ensures patient privacy and safety. Our study will work within the framework of above stated SFGH endoscopy center protocols and no deviations (apart from study medication administration) have been proposed in our study. Furthermore, Dr. Cello and Alex Rodas, will be present in the SFGH endoscopy center for all potential study cases and will be actively involved in the care of all study participants.

15.0 Alternatives

15.1 Study drug or treatment is available off-study:

- (•) Yes
- ( ) No
- ( ) Not applicable

15.2 * Is there a standard of care (SOC) or usual care that would be offered to prospective subjects at UCSF (or the study site) if they did not participate:

(•) Yes ( ) No

If yes, describe the SOC or usual care that patients would receive if they choose not to participate:

If patients choose not to participate they will resume their scheduled procedure as planned.

15.3 Describe other alternatives to study participation that are available to prospective subjects:

Since the colonoscopy procedure itself is not different whether a patient participates in the study or not, patients who do not wish to enroll will undergo the same procedure. Furthermore, because the use of glucagon prior to colonoscopy is variable amongst gastroenterologists, a patient not enrolled in the study may still receive glucagon during the colonoscopy.

16.0 Risks and Benefits

16.1 * Risks and discomforts:

Previously published research studies on the use of glucagon have noted mild nausea and rarely vomiting as the main side effect experienced with glucagon therapy. The rate of nausea ranges from 4-24% across the studies. Patients will be notified of this risk prior to obtaining informed consent and PRN Zofran will be

administered if the patient develops nausea or vomiting. It is important for the CHR to recognize that intravenous glucagon as proposed for this study is routinely use during all ERCP examinations. This has been the case for over 5000 ERCP examinations by Dr. Cello for the past 30 years and no adverse reactions been noted over this period of time. Furthermore, some gastroenterologist prescribe glucagon prior to all colonoscopies.

16.2 Steps taken to minimize risks to subjects:

Intravenous fluids and intravenous anti-emetic agents will be readily available for any subject enrolled in the study.

16.3 Benefits to subjects:

(•) Yes ( ) No

If yes, describe:

If the patient is randomized to receive glucagon, the colonoscopy may take less time, require less intravenous sedation and/or find more polyps.

16.4 Benefits to society:

Potential improvement of a procedure used widely in healthcare. The improvement may lead to better polyp detection rate, less operator fatigue and improved patient comfort.

16.5 Explain why the risks to subjects are reasonable:

Some gastroenterologists prescribe glucagon prior to endoscopy as a routine practice. Thus, patients enrolled in the study are not at a higher risk of complication then the general population since patients outside the study may still receive glucagon prior to their colonoscopy. Furthermore, the only side effect noted with glucagon therapy has been a slightly higher incidence of nausea/vomiting. All cases of nausea /vomiting noted in previous studies were responsive to anti-emetic therapy therefore all patients that develop nausea/vomiting during or after their colonoscopy will be symptomatically treated with intravenous fluids and anti-emetics. The potential benefits that may be derived from glucagon therapy prior to colonoscopy outweigh the slight increase in anti-emetic responsive nausea that may occur with glucagon therapy. Furthermore, we hope to better define the side-effect profile of glucagon prior to colonoscopy with this study by measuring patient blood sugar levels at the end of the colonoscopy.

17.0 Data and Safety Monitoring Plan

17.1 Describe the plan for monitoring data and safety (Help Text updated 9/13):

17.2 This study requires a Data and Safety Monitoring Board:

( ) Yes
(•) No or not sure

If **yes**, press **SAVE and CONTINUE** to move to the next section of the application.

17.3 If No, provide rationale:

( ) Social/Behavioral research
( ) Phase I trial
( ) Treatment IND/Compassionate Use Trial
(•) Other (explain below)

If **Other,** explain:

Although this is an interventional study it does not involve more than minimal risk to the study subject.

18.0 Confidentiality and Privacy

18.1 Plans for maintaining privacy in the research setting:

Information from the subject will be obtained in person at time of office visit. Information about the participants will be obtained from the outpatient and/or hospital chart when available.

18.2 Possible consequences to subjects resulting from a loss of privacy:

No real risk of damage to reputation/insurability or other social risks exists as result of loss of privacy

18.3 Study data are:

- ☐ Derived from the Integrated Data Repository (IDR) or The Health Record Data Service (THREDS) at SFGH
- ☑ Derived from a medical record (e.g. APeX, OnCore, etc. Identify source below)
- ☐ Added to the hospital or clinical medical record
- ☑ Created or collected as part of health care
- ☐ Used to make health care decisions
- ☑ Obtained from the subject, including interviews, questionnaires
- ☐ Obtained from a foreign country or countries only
- ☐ Obtained from records open to the public
- ☐ Obtained from existing research records
- ☐ None of the above

If **derived from a medical record**, identify source:

18.4 Identifiers may be included in research records:

◉ Yes ○ No

If **yes**, check all the identifiers that may be included:

- ☐ Names
- ☑ Dates
- ☐ Postal addresses
- ☑ Phone numbers
- ☐ Fax numbers
- ☐ Email addresses
- ☐ Social Security Numbers*
- ☑ Medical record numbers
- ☐ Health plan numbers
- ☐ Account numbers
- ☐ License or certificate numbers
- ☐ Vehicle ID numbers
- ☐ Device identifiers or serial numbers
- ☐ Web URLs
- ☐ IP address numbers
- ☐ Biometric identifiers

- [ ] Facial photos or other identifiable images
- [ ] Any other unique identifier

* Required for studies conducted at the VAMC

18.5 Identifiable information might be disclosed as part of study activities:

- (•) Yes ( ) No

If **yes**, indicate to whom identifiable information may be disclosed:

- [x] The subject's medical record
- [ ] The study sponsor
- [ ] Collaborators
- [x] The US Food & Drug Administration (FDA)
- [ ] Others (specify below)
- [ ] A Foreign Country or Countries (specify below)

If **Others**, specify:

18.6 Indicate how data are kept secure and protected from improper use and disclosure (check all that apply):

NOTE: Whenever possible, do not store subject identifiers on laptops, PDAs, or other portable devices. If you collect subject identifiers on portable devices, you MUST encrypt the devices.

- [ ] Data are stored securely in My Research
- [ ] Data are coded; data key is destroyed at end of study
- [x] Data are coded; data key is kept separately and securely
- [ ] Data are kept in a locked file cabinet
- [x] Data are kept in a locked office or suite
- [ ] Electronic data are protected with a password
- [ ] Data are stored on a secure network
- [ ] Data are collected/stored using REDCap or REDCap Survey
- [ ] Data are securely stored in OnCore

18.7 Additional measures to assure confidentiality and protect identifiers from improper use and disclosure, if any:

18.8 This study may collect information that State or Federal law requires to be reported to other officials or ethically requires action:

- ( ) Yes (•) No

Explain:

18.9 This study will be issued a Certificate of Confidentiality:

- ( ) Yes (•) No

19.0 Subjects

19.1 Check all types of subjects that may be enrolled:

- [ ] Inpatients
- [x] Outpatients
- [ ] Healthy volunteers
- [ ] Staff of UCSF or affiliated institutions

19.2 Additional vulnerable populations:

- [ ] Children
- [ ] Subjects unable to consent for themselves
- [ ] Subjects unable to consent for themselves (emergency setting)
- [ ] Subjects with diminished capacity to consent
- [x] Subjects unable to read, speak or understand English
- [ ] Pregnant women
- [ ] Fetuses
- [ ] Neonates
- [ ] Prisoners
- [ ] Economically or educationally disadvantaged persons
- [ ] Investigators' staff
- [ ] Students

Explain why it is appropriate to include the types of subjects checked above in this particular study:

Subjects unable to read, speak or understand english form a large percentage of the SFGH population. To prevent exploitation/coersion of this vulnerable population, study coordinators fluent in the patient's primary language will be available in person during the informed consent process. All communication with the patient will be in the patients primary language.

Describe the additional safeguards that have been included in the study to protect the rights and welfare of these subjects and minimize coercion or undue influence:

To prevent coersion, patients will be informed that they will undergo routine colonoscopy as previous planned even if they refuse to participate in the study. To prevent physican coercion, all procedures associated with the consent process will be performed by the study coordinators.

20.0 Inclusion of Non-English Speaking Subjects

20.1 Indicate which method(s) you will use to consent non-English speaking subjects:

- [x] Preferred Method—Consent form and other study documents will be available in the subject's primary language Personnel able to discuss participation in the patient's language will be present for the consent process.
- [ ] Short-Form—A qualified interpreter will translate the consent form verbally, and subjects will be given the Experimental Subject's Bill of Rights in their primary language, following instructions in Those Who do not Read, Speak or Understand English for required witnessing and signatures

20.2 Explain how you will maintain the ability to communicate with non-English speakers throughout their participation in the study:

All communication with non-English speakers will occur with the use of an in-person interpreter.

21.0 Recruitment

21.1 * Methods (check all that apply):

- [x] Study investigators (and/or affiliated nurses or staff) recruit their own patients directly in person or by phone.
- [ ] Study investigators recruit their own patients by letter. Attach the letter for review.
- [ ] Study investigators send a "Dear Doctor" letter to colleagues asking for referrals of eligible patients. If interested, the patient will contact the PI or the PI may directly recruit the patients (with documented permission from the patient). Investigators may give the referring physicians a study information sheet for the patients.
- [ ] Study investigators provide their colleagues with a "Dear Patient" letter describing the study. This letter can be signed by the treating physicians and would inform the patients how to contact the study investigators. The study investigators may not have access to patient names and addresses for mailing
- [ ] Advertisements, notices, and/or media used to recruit subjects. Interested subjects initiate contact with study investigators. Attach ads, notices, or media text for review. In section below, please explain where ads will be posted.
- [ ] Study investigators identify prospective subjects through chart review. (Study investigators request a Waiver of Authorization for recruitment purposes.)
- [ ] Large-scale epidemiological studies and/or population-based studies: Prospective subjects are identified through a registry or medical records and contacted by someone other than their personal physician. (Study investigators request a Waiver of Authorization for recruitment purposes.)
- [ ] Direct contact of potential subjects who have previously given consent to be contacted for participation in research. Clinic or program develops a CHR-approved recruitment protocol that asks patients if they agree to be contacted for research (a recruitment database) or consent for future contact was documented using the consent form for another CHR-approved study.
- [ ] Study investigators list the study on the School of Medicine list of UCSF Clinical Trials website or a similarly managed site. Interested subjects initiate contact with investigators.
- [ ] Study investigators recruit potential subjects who are unknown to them through methods such as snowball sampling, direct approach, use of social networks, and random digit dialing.
- [ ] Other

If **Other**, explain:

21.2 * How, when, and by whom eligibility will be determined:

The primary investigator will perform a chart review of subjects prior to their endoscopy. Subjects not meeting any exclusion criteria will be identified and approached for the study on the day of their procedure.

21.3 * How, when, where and by whom potential subjects will be approached:

Potential subjects will be screened prior to their procedure day. A research coordinator that is fluent in the patient's primary language will approach the eligible patients and explain the research study, the study drug and its side effects. The patients will also be provided with a study fact sheet. If the patient agrees to enroll in the study, they can provide their signed consent to the research coordinator. If they refuse the study, they will undergo a colonoscopy as previously planned.

21.4 * Protected health information (PHI) will be accessed prior to obtaining consent:

(•) Yes ( ) No

22.0 Waiver of Consent/Authorization for Recruitment Purposes

This section is required when study investigators (and/or affiliated nurses or staff) recruit their own patients directly.

22.1 * Study personnel need to access protected health information (PHI) during the recruitment process and it is not practicable to obtain informed consent until potential subjects have been identified:

◉ Yes

If **no**, a waiver of consent/authorization is NOT needed.

22.2 * A waiver for screening of health records to identify potential subjects poses no more than minimal risk to privacy for participants:

◉ Yes

If **no**, a waiver of authorization can NOT be granted.

22.3 * Screening health records prior to obtaining consent will not adversely affect subjects' rights and welfare:

◉ Yes

If **no**, a waiver of authorization can NOT be granted.

22.4 * Check all the identifiers that will be collected prior to obtaining informed consent:

- ☑ Names
- ☑ Dates
- ☐ Postal addresses
- ☑ Phone numbers
- ☐ Fax numbers
- ☐ Email addresses
- ☐ Social Security Numbers*
- ☑ Medical record numbers
- ☐ Health plan numbers
- ☐ Account numbers
- ☐ License or certificate numbers
- ☐ Vehicle ID numbers
- ☐ Device identifiers or serial numbers
- ☐ Web URLs
- ☐ IP address numbers
- ☐ Biometric identifiers
- ☐ Facial photos or other identifiable images
- ☐ Any other unique identifier
- ☐ None

Note: HIPAA rules require that you collect the minimum necessary.

22.5 * Describe any health information that will be collected prior to obtaining informed consent:

We will be collecting names, dates and medical records prior to obtaining consent so that we can seek out potential study subjects.

Note: HIPAA requires that you collect the minimum necessary.

22.6 * Describe your plan to destroy the identifiers at the earliest opportunity consistent with the research or provide a health or research justification for retaining the identifiers, or indicate and explain that retention is required by law:

Once the study has finished and all data has been analyzed, we will destroy all study records three years after analyses of said records.

23.0 Informed Consent

23.1 * Methods (check all that apply):

- [x] Signed consent will be obtained from subjects and/or parents (if subjects are minors)
- [ ] Verbal consent will be obtained from subjects using an information sheet or script
- [ ] Electronic consent will be obtained from subjects via the web or email
- [ ] Implied consent will be obtained via mail, the web or email
- [ ] Signed consent will be obtained from surrogates
- [ ] Emergency waiver of consent is being requested for subjects unable to provide consent
- [ ] Informed consent will not be obtained

23.2 * Process for obtaining informed consent:

Subjects will be informed about the study in person by a research coordinator on the day of their procedure. They will be presented with the consent form which will describe what the study protocol entails and what its aims are. If they choose to participate in the study, they will be assigned a study number. If they choose to refure participation, they will undergo routine colonoscopy as scheduled.

23.3 * How investigators will make sure subjects understand the information provided to them:

This information will be offered to the subjects using clear, lay language. They will be given plenty of time to think about the information received and will be asked whether they need further clarification and/or time before they make their decision.

24.0 Financial Considerations

24.1 Subjects payment or compensation method (check all that apply):

Payments will be (check all that apply):

- [x] Subjects will not be paid
- [ ] Cash
- [ ] Check
- [ ] Debit card
- [ ] Gift card
- [ ] Reimbursement for parking and other expenses
- [ ] Other:

Specify **Other**:

24.2 Describe the schedule and amounts of payments, including the total subjects can receive for completing the study. If deviating from recommendations in Subject Payment Guidelines, include specific justification below.

24.3 Costs to Subjects: Will subjects or their insurance be charged for any study procedures?

(•) Yes ( ) No

If **yes,** describe those costs below, and compare subjects' costs to the costs associated with alternative

care off-study. Finally, explain why it is appropriate to charge those costs to the subjects.

Procedures will be charged to the patient's insurance carriers. These procedures are pre-approved prior to scheduling procedures. Patients will not incur any extra costs for procedures that are already warranted.

25.0 CTSI Screening Questions

25.1 * **This study will be carried out at one of the UCSF Clinical Research Services (CRS) centers or will utilize CRS services. CRS centers are at the following sites:**

- **SFGH Clinical Research Center**
- **Moffitt Adult Clinical Research Center**
- **Moffitt Hospital Pediatrics & NCRC**
- **Mount Zion Hospital Clinical Research Center**
- **Tenderloin Center**
- **CHORI Children's Hospital Pediatrics & Adult Clinical Research Center**
- **Kaiser Oakland Research Unit**
- **SF VA Medical Center Clinical Research Unit**

Please note: Effective 3/1/14, the CRS form will no longer be completed and submitted in iRIS. The CRS budget request form can be found at: https://accelerate.ucsf.edu/files/crs/BudgetRequest2015.docx. Follow the instructions on the form to submit.

Even if you click 'Yes' to this question, the form will no longer proceed to the Clinical Research Services (CRS) Application Form section.

○ Yes ◉ No

25.2 This project involves community-based research:

○ Yes ◉ No

25.3 This project involves practice-based research:

○ Yes ◉ No

26.0 End of Study Application

26.1

End of Study Application Form

To continue working on the Study Application: Click on the section you need to edit in the left-hand menu. Remember to save through the entire Study Application after making changes.

If you are done working on the Study Application: Click Save and Continue. If this is a new study, you will automatically enter the Initial Review Submission Packet form, where you can attach consent forms or other study documents. Review the Initial Review Submission Checklist for a list of required attachments.

Answer all questions and attach all required documents to speed up your approval.

[Consent Form]

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

CONSENT TO BE A RESEARCH SUBJECT

Study Title: Role of glucagon in outpatient colonoscopy? A prospective, double-blind randomized controlled trial.

Dr. John P. Cello and Dr. Anupam Aditi from the Departments of Surgery and Medicine are conducting a research study to investigate the effectiveness of glucagon (a hormone produced by the body) in reducing the duration of colonoscopies and improving its effectiveness.

You are being asked to participate in this study because you are scheduled to undergo routine colonoscopy. Medical research studies include only people who choose to take part in them. Take your time to make your decision about participating. You may discuss your decision with your family and friends and with your health care team. If you have any questions, you may ask your study doctor.

Why is this study being done?

Colonoscopy is the most commonly performed surgical procedure by gastroenterologists in the United States and is most commonly used for the screening, detection and removal of pre-cancerous polyps. Currently, only 50% of Americans at risk for development of colorectal cancer are being screened with a colonoscopy and attempts to increase the rate of screening will be limited by the total number of colonoscopies that are performed daily in the United States. Through this study, which will be funded by the UCSF department of Surgery and Medicine, we plan to identify if glucagon therapy before endoscopy decreases the duration of colonoscopy while maintaining its effectiveness in identifying pre-

cancerous polyps. We also plan to evaluate if glucagon therapy improves the colonoscopy experience for the patient.

Glucagon, a hormone produced by your body, decreases spasms in your stomach, intestines and colon and is routinely used in other endoscopic procedures performed by gastroenterologists. We aim to study if decreased colon spasms due to glucagon can help decrease total colonoscopy time, improve detection of pre-cancerous polyps and decrease any discomfort patients may feel during and following colonoscopy.

How many people will take part in this study?

We plan to enroll approximately 200 patients for this study.

What will happen if I take part in this research study?

If you agree to be in this study, the following will occur:

You will be "randomized" into one of the study groups described below. Randomization means that you are put into a group by chance. A computer program will place you in one of the groups. Neither you nor your doctor can choose the group you will be in. You will have an equal chance of being placed in either group.

- **Glucagon group:** If you are assigned to this group, you will receive 1 mL of glucagon prior to the start of your colonoscopy. The rest of the colonoscopy procedure will be done the same whether or not you participate in the study.
- **Placebo group:** If you are assigned to this group, you will receive 1 mL of normal saline prior to the start of your colonoscopy. The rest of the colonoscopy procedure will be done the same whether or not you participate in the study.

Whether you choose to participate in the study or not, you will be scheduled for a colonoscopy at the SFGH Endoscopy unit based on your preference. If you choose to participate in the study, you will undergo standard medication and procedural protocol routinely performed for all patients receiving a colonoscopy. On the day prior to your colonoscopy, you will undergo a bowel preparation to clear your colon for effective visualization of your colon. On the day of the procedure, you will change into a hospital gown and have an intravenous catheter placed to administer medications. Prior to your procedure, you will be given a self-addressed stamped envelope containing a questionnaire regarding your colonoscopy experience. You will be instructed to take the envelope home with you and answer the questionnaire on the day following your colonoscopy. Once completed, we ask that you mail the questionnaire back to the study coordinator using the self-addressed envelope. Prior to the start of your colonoscopy, you will be given medications into your vein that will allow you to stay awake and aware but minimize any discomfort during the colonoscopy. At this time, depending on your randomization, you will receive either 1 mL of glucagon or 1 mL of normal saline prior to the start of your colonoscopy. During the colonoscopy, a flexible lighted tube fitted with a tiny video camera on the end will be inserted into the rectum. The inside of the rectum and entire colon will be viewed for polyps and cancer. Your vitals signs will be closely monitored and further medication to ensure your comfort during the procedure will be administered as long as it is deemed safe to do so.

Following the procedure, you will follow standard post-sedation recovery protocol. Once it is felt you are safe to discharge from the endoscopy unit, you will be entrusted to your designated guardian to get you home safely. On the day following your colonoscopy, we ask that you complete the patient questionnaire handed to your prior to the colonoscopy and return it to the study coordinators using the self addressed envelope.

If you decide to participate in this research study, you will be required to sign this consent form in order to participate.

Study Medications

Glucagon is a hormone produced by the body and it helps to regulate blood sugar levels. Glucagon also relaxes the stomach, small intestines and the colon and is used by widely by Gastroenterologists and Radiologists when evaluating the stomach, intestines and colon. Glucagon therapy is safely tolerated by patients and given daily across the world prior to studies such as X-ray, CT scans, and endoscopy. Prior studies have noted some patients experience nausea with glucagon administration, however, it is unclear if the rate of nausea is higher than nausea experienced after injection of normal saline (placebo).

How long will I be in the study?

You will be in the study on the day of your colonoscopy. Including the time it takes to perform a colonoscopy, study participation will take approximately 70-135 minutes.

Can I stop being in the study?

Yes. You may stop at any time.

It is possible that even though you have given your consent, you may still be found not to be eligible for participation in the study. The investigator may end your participation in this study for any reason (for example, any health reasons that would not allow you to receive the study drug).

If you choose to participate in the study and later decide to stop your participation, you must tell the study doctor and your information will be removed from the study.

What side effects or risks can I expect from being in the study?

Previously published research studies on the use of glucagon have noted mild nausea and rarely vomiting as the main side effect experienced with glucagon therapy. The rate of nausea ranges from 4-24% across the previous studies. It is unclear if the rate of nausea is higher than nausea experienced after injection of normal saline (placebo). Glucagon is routinely used during other endoscopic examination and Dr. Cello, one of the study physicians, has performed over 5000 endoscopic examinations using glucagon over the past 30 years.

Randomization risks: You will be assigned to a treatment group by chance, and the treatment you receive may prove to be less effective or to have more side effects than the other study treatment or other available treatments.

Are there benefits to taking part in the study?

We plan to determine if the study medication allows for improved patient comfort during a colonoscopy, however, there is no established benefit of the study medication given prior to colonoscopy at this time.

What other choices do I have if I do not take part in this study?

You will undergo routine colonoscopy without being part of this research study.

Will my medical information be kept private?

Participation in research involves some loss of privacy. We will do our best to make sure that information about you is kept confidential, but we cannot guarantee total privacy. Some information from your medical record will be collected and used for this study and some information may be added to your medical record as a result of your participation. Immediately after we obtain your informed consent, we will assign a numerical code with your name. A master list of patient names and their assigned numerical codes will be kept on a password-protected computer. All paperwork (questionnaires) and information (data sets) obtained during the study will utilize a patient's numerical code in order to minimize risk to the patient. Your personal information may be given out if required by law. If information from this study is published or presented at scientific meetings, your name and other personal information will not be used. You will not in any way be identified.

Organizations that may look at and/or copy your medical records for research, quality assurance, and data analysis include:

- UCSF's Committee on Human Research;
- The Food and Drug Administration (FDA)

What are the costs of taking part in this study?

The costs of all visits, treatments, and tests described above will be billed to your insurance. Insurance companies sometimes refuse to pay for costs when individuals are participating in research. If this happens in your case, you will be billed for the costs your insurance will not cover.

Will I be paid for taking part in this study?

You will not be paid to participate in this study.

What are my rights if I take part in this study?

Taking part in this study is your choice. You may choose either to take part or not to take part in the study. If you decide to take part in this study, you may leave the study at any time. No matter what decision you make, there will be no penalty to you and you will not lose any of your regular benefits. Leaving the study will not affect your medical care. You can still get your medical care from our institution.

Who can answer my questions about the study?

Dr. Aditi, Dr. Cello or the study coordinator has explained this study to you and your questions were answered. If you have any other questions about the study, you may call Dr. Aditi, Dr. Cello or the study coordinator (206-4746).

For questions about your rights while taking part in this study, call the office of the Committee on **Human Research**, UCSF's Institutional Review Board (a group of people who review the research to

protect your rights) at **415-476-1814**. You will receive a copy of this consent form so you can refer to this information in the future.

CONSENT

You have been given copies of this consent form and the Experimental Subject's Bill of Rights to keep.

You will be asked to sign a separate form authorizing access, use, creation, or disclosure of health information about you.

PARTICIPATION IN RESEARCH IS VOLUNTARY. You have the right to decline to participate or to withdraw at any point in this study without penalty or loss of benefits to which you are otherwise entitled.

If you wish to participate in this study, you should sign below.

_____ _____
Patient Signature **Date (mm / dd / yy)**

_____
Printed name of patient

_____ _____
Witness Signature **Date (mm / dd / yy)**

_____
Printed name of witness

_____ ☐ **Copy of signed consent given to patient**
Signature of person conducting consent discussion

_____
Printed name of person conducting consent discussion

For Study Personnel Only:

Patient #: _____

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

EXPERIMENTAL SUBJECT'S

BILL OF RIGHTS

The rights below are the rights of every person who is asked to be in a research study. As an experimental subject I have the following rights.

1) To be told what the study is trying to find out,
2) To be told what will happen to me and whether any of the procedures, drugs or devices is different from what would be used in standard practice,
3) To be told about the frequent and/or important risks, side effects, or discomforts of the things that will happen to me for research purposes,
4) To be told if I can expect any benefit from participating, and, if so, what the benefit might be,
5) To be told of the other choices I have and how they may be better or worse than being in the study,
6) To be allowed to ask any questions concerning the study both before agreeing to be involved and during the course of the study,
7) To be told what sort of medical treatment is available if any complications arise,
8) To refuse to participate at all or to change my mind about participation after the study has started. This decision will not affect my right to receive care I would receive if I were not in the study,
9) To receive a copy of the signed and dated consent form,
10) To be free of pressure when considering whether I wish to agree to be in the study.

If I have other questions I should ask the researcher or the research assistant. In addition, I may contact the Committee on Human Research, which is concerned with protection of volunteers in research projects. I may reach the committee office by calling: (415) 476-1814 from 8:00 AM to 5:00 PM, Monday to Friday,

or by writing to the Committee on Human Research, Box 0962, University of California, San Francisco, CA 94143.

Call 476-1814 for information on translations.

12/91

Study Identification Number _____

Patient Questionnaire

Instructions: For the following questions, make your response with an **"X" mark on the line** where it best represents your feelings.

1. How much pain did you experience during and after the colonoscopy?

No Pain  Extreme Pain

2. How much abdominal fullness did you experience during and after the colonoscopy?

No Fullness  Severe Fullness

3. How willing are you to undergo a repeat colonoscopy in the future if medically indicated?

Very Willing  Not willing

Thank you for your participation in this study. Please mail this questionnaire back to us using the attached self-addressed envelope.

Study Identification Number _____

Endoscopist Questionnaire

Instructions: For the following questions, make your response with an **"X" mark on the line** where it best represents your feelings.

1. How would you rate the level of colonic spasms experienced during this colonoscopy?

No spasms — Severe spasms

2. How would you rate the difficulty in scope manipulation during this colonoscopy?

Not difficult — Very difficult

3. How would you rate the mucosal visualization experienced during this colonoscopy?

Easily Visualized — Poorly Visualized

Please fill in the information below:

Time to intubate the cecum: _____ seconds

Colonoscope withdrawal time: _____ seconds

Total procedure time: _____ seconds

Number of adenomas detected during the colonoscopy: _____

Name and amount of sedative used during the colonoscopy:

_____

_____

Documentation of Scientific Review of Human Subjects Research Proposals Prior to IRB Evaluation

Select one of the following methods for independent peer review that applies to your IRB application.

External Peer Review

☐ I. Funding organization (NIH, NSF, foundations), when the research protocol has been subjected to full peer review (eg, review by a study section or grant committee). The actual protocol (which describes in detail the involvement of human subjects) being submitted to the IRB must have been reviewed in its current form. Peer review of a grant that describes a clinical trial in general terms does not satisfy this criterion.
(Note: industry-sponsored clinical trials designed by the sponsor with or without external consultants do not satisfy this criterion for independent peer-review.)

Name of organization performing the review: _____

How was the review panel selected by the organization? (do not need to describe for NIH study sections or for AHC Seed or FRD grants; for others, simple description of the review process taken from the grant announcement will suffice) _____

_____

Internal Peer Review

☐ I. UCSF scientific review committee:

- ☐ Cancer Center Protocol Review Committee
- ☐ Clinical Research Services (CRS) Scientific Review Committee

Attach the Scientific Review Form that states that scientific review has been performed.

Departmental/Collegiate Review

☑ II. A departmental or collegiate appropriately constituted peer review committee. An appropriate review committee has the following features:

- A minimum of two reviewers (three or more is preferred)
- Consensus regarding the scientific acceptability of the project (if there is not initial consensus, some group discussion regarding the project must take place)
- Documentation of the review process (dates, participants, method of review and discussion, decision).
- Student research projects may have students included on the review committee, if desired. Evaluations of student research projects can be done by the advisor. The review may also be done within the context of a course, provided that all the criteria below are considered.

☐ III. Clinical Research Services (CRS) Scientific Review Committee

- For protocols not conducted in a CRS location and needing scientific review

Attach the signed form documenting that departmental/collegiate or CRS Scientific Review of the attached research protocol has been performed.

I attest that the above information is correct and that, to the best of my knowledge, scientific review and approval of the attached research protocol has been performed by a group of independent peer reviewers

ANUPAM ADITT — 3/31/14

Principal Investigator — Date

*Please Include this form as "Other Study Documents" with the IRB application in iMedRIS

University of California
San Francisco

Human Research Protection Program
Institutional Review Board (IRB)

Expedited Review Approval

Principal Investigator	*Co-Principal Investigator*
Anupam Aditi	John P Cello, MD

Type of Submission: Modification Form
Study Title: Role of Glucagon in outpatient colonoscopy? A Prospective Double-Blind randomized controlled trial.

IRB #: 14-13185
Reference #: 175043

Committee of Record: Laurel Heights Panel

Study Risk Assignment: Greater than minimal

Approval Date: 09/26/2016 **Expiration Date:** 06/06/2017

Regulatory Determinations Pertaining to this Approval:

This submission was eligible for expedited review as:
Minor changes in previously approved research

IRB Comments:

All changes to a study must receive UCSF IRB approval before they are implemented. Follow the modification request instructions. The only exception to the requirement for prior UCSF IRB review and approval is when the changes are necessary to eliminate apparent immediate hazards to the subject (45 CFR 46.103.b.4, 21 CFR 56.108.a). In such cases, report the actions taken by following these instructions.

Expiration Notice: The iRIS system will generate an email notification eight weeks prior to the expiration of this study's approval. However, it is your responsibility to ensure that an application for continuing review approval has been submitted by the required time. In addition, you are required to submit a study closeout report at the completion of the project.

For a list of all currently approved documents, follow these steps: Go to My Studies and open the study – Click on Informed Consent to obtain a list of approved consent documents and Other Study Documents for a list of other approved documents.

San Francisco Veterans Affairs Medical Center (SFVAMC): If the SFVAMC is engaged in this research, you must secure approval of the VA Research & Development Committee in addition to UCSF IRB approval and follow all applicable VA and other federal requirements. The UCSF IRB website has more information.

University of California
San Francisco

Human Research Protection Program
Institutional Review Board (IRB)

Full Committee Approval

Principal Investigator	**Co-Principal Investigator**
Anupam Aditi	John P Cello, MD

Type of Submission: Continuing Review Submission Form
Study Title: Role of Glucagon in outpatient colonoscopy? A Prospective Double-Blind randomized controlled trial.

IRB #: 14-13185
Reference #: 165308

Reviewing Committee: Laurel Heights Panel

Study Risk Assignment: Greater than minimal

Approval Date: 06/07/2016 **Expiration Date:** 06/06/2017

Regulatory Determinations Pertaining to This Approval: Individual Research HIPAA Authorization is required of all subjects. Use the Permission to Use Personal Health Information for Research form.

A waiver of HIPAA Authorization and consent is acceptable for the recruitment procedures to identify potential subjects. The recruitment procedures involve routine review of medical or other records, do not adversely affect the rights and welfare of the individuals, and pose minimal risk to their privacy, based on, at least, the presence of the following elements: (1) an adequate plan to protect the identifiers from improper use and disclosure; (2) an adequate plan to destroy the identifiers at the earliest opportunity consistent with conduct of the research, or a health or research justification for retaining the identifiers was provided or such retention is otherwise required by law; (3) adequate written assurances that the requested information will not be reused or disclosed to any other person or entity, except as required by law, for authorized oversight of the research study, or for other research for which the use or disclosure of the requested information would be permitted by the Privacy Rule; (4) the research could not practicably be conducted without the waiver; and (5) the study recruitment could not practicably be conducted without access to and use of the requested information. Study participants will sign a consent form prior to participation in the study.

IRB Comments:

All changes to a study must receive UCSF IRB approval before they are implemented. Follow the modification request instructions. The only exception to the requirement for prior UCSF IRB review and approval is when the changes are necessary to eliminate apparent immediate hazards to the subject (45 CFR 46.103.b.4, 21 CFR 56.108.a). In such cases, report the actions taken by following these instructions.

Expiration Notice: The iRIS system will generate an email notification eight weeks prior to the expiration of this

study's approval. However, it is your responsibility to ensure that an application for continuing review approval has been submitted by the required time. In addition, you are required to submit a study closeout report at the completion of the project.

Documents Reviewed and Approved with this Submission (includes all versions – final approved versions are labeled 'Approved' in the Outcome column):

Consent Documents

Study Consent Form			
Title	Version #	Version Date	Outcome
Glucagon in Colonoscopies	Version 1.3	06/16/2014	Approved

For a list of all currently approved documents, follow these steps: Go to My Studies and open the study – Click on Informed Consent to obtain a list of approved consent documents and Other Study Documents for a list of other approved documents.

San Francisco Veterans Affairs Medical Center (SFVAMC): If the SFVAMC is engaged in this research, you must secure approval of the VA Research & Development Committee in addition to UCSF IRB approval and follow all applicable VA and other federal requirements. The IRB website has more information.