FluoroPharma Medical, Inc. (FPMI)

INITIATION REPORT
May 29, 2012

Rating	Target
Strong Speculative Buy	$2.50

Analysts
Stephen M. Dunn
Sr. Managing Director Research
sdunn@LifeTechCapital.com
(954) 240-9968

Symbol: FPMI
Exchange: OTCBB

500 Boylston Street, Suite 1600
Boston, MA 02116
Phone: (614) 456-0366
www.FluoroPharma.com
CEO – Johan M. (Thijs) Spoor

- **Initiating FluoroPharma with Strong Speculative Buy**
- **Three "Shots-on-Goal" in Cardiac PET Imaging**
- **Cardiac Disease is #1 Killer in U.S. and the World**
- **Growing M&A Interest in Molecular Imaging Space**

1.) **Cardiovascular Disease is the Leading Global Killer:** According to the World Health Organization, 7.3M deaths were directly attributable to cardiovascular disease representing 12.8% of all deaths making it the leading cause of death worldwide. In the United States, the situation is even worse with cardiovascular disease being responsible for 32% of all deaths (1 in every 3 deaths) with 11.8% of the U.S. population, or 27.1M people, currently diagnosed with heart disease. (*see Coronary Artery Disease CAD*)

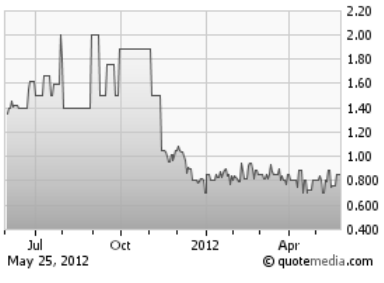
2.) **Better Screening and Diagnostics Needed to Drive Cost-Efficiencies**: While other companies are developing drugs and devices to treat cardiovascular disease (*see Coronary Artery Disease CAD*), FluoroPharma is focused on a pipeline of non-invasive PET imaging agents BFPET, CardioPET and VasoPET that are being developed to more accurately screen and diagnose patients for the most cost-efficient care. With 1 in 3 U.S. adults currently living with cardiovascular disease and 935,000 heart attacks and 795,000 strokes each year, total U.S. direct and indirect costs from cardiovascular disease is almost $300 billion annually. Research has shown that PET imaging is cost-effective for CAD management and can result in a 50% reduction in the use of coronary arteriography and CABG, a 30% reduction in CAD management costs, and excellent short-term patient outcomes, compared with conventional SPECT imaging. (*see PET/CT Imaging Scanners*)

3.) **Three "Shots-on-Goal" in Cardiac PET Imaging**: FluoroPharma's BFPET is being developed for use in combination with stress-testing in patients with suspected or proven cardiac artery disease and has the potential to become the cardiac standard of care in institutions… (*Continued)*

Market Data		Share Data		Most Recent Quarter	
Price	$0.85	Outstanding	22.4M	Revenue	$0.0M
52-Week	$0.65-$1.05	Cash/Share	$0.11	Net Income	($0.9M)
Market Cap	$19.1M	Book/Share	$0.11	EPS	($0.04)
Avg. Daily Vol.	13,200	Price/Book	7.7x	Cash	$2.4M
% Short	0.0%	Debt/Share	$0.00	Debt	$0.0M

Financial Results and Projections

FYE Dec. 31	2011	2012E	2013E	2014E	2015E
Revenue	$0.0M	$0.0M	$0.0M	$0.0M	$0.0M
Net Income	($4.5M)	($4.7M)	($4.9M)	($5.0M)	$5.1M
EPS	($0.25)	($0.19)	($0.15)	($0.13)	($0.11)



Please See Last Two Pages For Important Disclosures And Analyst Certification

3.) **Three "Shots-on-Goal" in Cardiac PET Imaging**: (*Continued*) …with PET/CT imaging scanners. (*see BFPET*). For patients who are unable to perform exercise cardiac stress-testing, FluoroPharma is developing CardioPET for detecting regions of metabolic insufficiency to diagnose acute and chronic cardiac artery disease. (*see CardioPET*) Finally, FluoroPharma is developing VasoPET for patients that have already had a heart attack or stroke with the risk of a potentially fatal recurrence. VasoPET detects inflammatory cells and rapidly dividing cells to identify plaque that is likely to rupture and result in a recurring heart attack or stroke. (*see VasoPET*) **Both BFPET and CardioPET are expected to begin Phase II human clinical trials in H2 2012 with VasoPET expected to begin a Phase Ia trial in Q1 2013**.

4.) **Attractive Space for M&A:** We note that the molecular imaging space has been active for M&A deals such as Eli Lilly's (NYSE:LLY) acquisition of Avid Radiopharmaceuticals Amyvid™ [^{18}F] florbetapir for Alzheimer's PET imaging in Q4'10 for $300M in cash and up to an additional $500M for milestones. More recently, Navidea (Nasdaq:NAVB Rating:Strong Speculative Buy) acquired AZD4694 for PET imaging in Alzheimer's and acquired an option on [^{123}I]-E-IAFCT for SPECT imaging in Parkinson's. We also note that Piramal Healthcare recently acquired Bayer Pharma AG's (XETRA:BAYN) [^{18}F] florbetaben for Alzheimer's PET imaging while Phase III trials were still ongoing. **We believe FluoroPhama's cardiac PET imaging portfolio could make them an attractive M&A or partnering candidate as early as Phase II completion should they show strong clinical results.**

5.) **Capital Raise Expected:** Although FluoroPharma believes they have sufficient cash through 2013, we expect the company to raise additional funds in preparation for their planned clinical trials in multiple indications and we have included our estimates in the financial model.

6.) **Initiating FluoroPharma with Strong Speculative Buy $2.50 Target**: Although FluoroPharma is an early-stage company, we believe savvy investors wanting to get ahead of the curve will find FluoroPharma shares attractive. While currently "under the radar", we expect their future newsflow in the active molecular imaging space combined with their focus on cardiac PET imaging to bring additional investor attention in the near-future. Our Strong Speculative Buy rating and a 12-18 month price target of $2.50 is based on a 35x multiple on projected fiscal year 2017 EPS and discounted 45% for cumulative risk with an acquisition premium of 20%.

Company Description

Calendar Quarter	MILESTONES & EVENTS		
	BFPET	CardioPET	VasoPET
Q1 2012			
Q2 2012			
Q3 2012	Initiate Phase II	Initiate Phase II Complete PII Enrollment	
Q4 2012		DATA Phase II	File IND
Q1 2013	Interim DATA Phase II		Initiate Phase Ia
Q2 2013		Initiate Phase III	
Q3 2013	DATA Phase II		Initiate Phase Ib
Q4 2013			

Source: FluoroPharma and LifeTech Capital Estimates

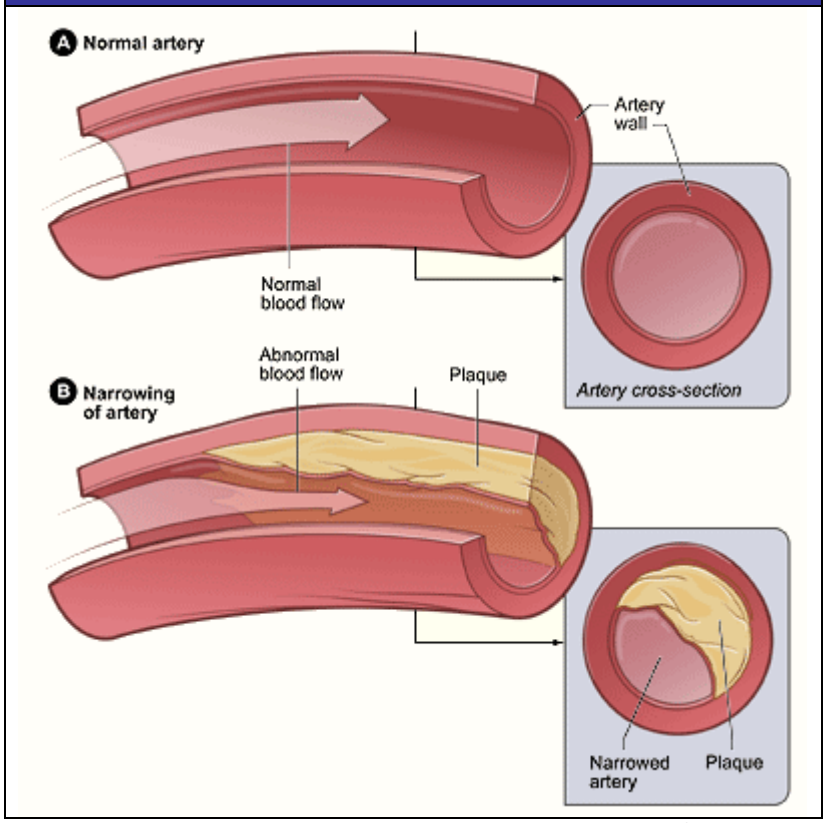
Boston-based FluoroPharma Medical is a biopharmaceutical company specializing in discovering, developing and commercializing molecular imaging pharmaceuticals for cardiac indications. Molecular imaging pharmaceuticals are radiopharmaceuticals that enable early detection of disease through the visualization of subtle changes in biochemical and biological processes. Of their three programs, two are currently clinical-stage molecular imaging pharmaceutical product candidates, CardioPET for the assessment of myocardial metabolism and BFPET for the assessment of blood flow for chronic coronary artery disease (CAD). They also have VasoPET for the detection of vulnerable plaque in CAD patients which is currently in preclinical development with human clinical trials expected in 2013.

All of FluoroPharma's imaging tracers are used in conjunction with a PET scanner (Positron Emission Tomography). A PET scan shows cellular-level metabolic changes in a patient's organ or tissue. This is unlike MRI (magnetic resonance imaging) and CT (computed tomography) scanners which show anatomical structure rather than how the organs and tissues are working at a cellular level as shown in a PET scan. Unlike SPECT (single-photon emission computed tomography), PET scans can perform quantitative measurements with each image voxel (volumetric pixel) providing a linear measure of tracer concentration.

Coronary Artery Disease (CAD)

Coronary Artery Disease (CAD) (*also called Coronary Heart Disease (CHD) and Atherosclerotic Heart Disease (AHD)*) is the result of the accumulation of atheromatous plaques within the walls of the coronary arteries that supply the myocardium (heart muscle) with oxygen and nutrients. **According to the World Health Organization, 7.3M deaths were directly attributable CAD during 2008 or 12.8% of all global deaths making CAD the leading cause of death worldwide**.[1] **The situation is even worse in the United States with cardiovascular disease being responsible for 32% of all deaths (1 in every 3 deaths)**.[2]

Atherosclerosis



Source: National Heart Lung and Blood Institute, National Institutes of Health

Plaque is made up of fat, cholesterol, calcium and other blood substances, which builds up in the arteries over time (*atherosclerosis*). Eventually, the plaque hardens and narrows the coronary arteries. This reduces the flow of oxygen-rich blood to the myocardium (*heart muscle*) and can result in angina (*chest pain*). Worse, the area of plaque can rupture causing a blood clot to form on the surface of the plaque, and if the clot is large enough, it can mostly or completely block blood flow through a coronary artery. This results in a heart attack (*acute myocardial infarction*) and if the blood flow is not restored quickly, the heart muscle begins to die (*cardiac ischemia*) and can lead to serious problems and even death.[3]

Drugs Cannot Cure Coronary Artery Disease

The traditional risk factors for coronary artery disease are high LDL (*low-density lipoprotein*) or "bad" cholesterol, low HDL (*high-density lipoprotein*) or "good" cholesterol, high blood pressure, family history, diabetes, smoking, being post-menopausal for women and being older than 45 for men as well as obesity. There has been significant progress in reducing LDL cholesterol with the widespread adoption of statin drugs such as Lipitor® (atorvastatin), Crestor® (rosuvastatin), Zocor® (simvastatin) as well as several others. The clinical benefits of statins are focused on slowing down the accumulation of plaque (*atherosclerosis*) to reduce cardiac events. **However, up to 35% of heart attack patients do not have high blood cholesterol levels, but most of them have atherosclerosis, meaning high levels of LDL cholesterol are not always necessary for atherosclerotic plaques to form**.[4]

Estimated Direct and Indirect Costs of Major Cardiovascular Diseases in the United States for 2010	
Coronary Heart Disease	**$108.9 billion**
Hypertensive Disease	**$93.5 billion**
Stroke	**$53.9 billion**
Heart Failure	**$34.4 billion**
TOTAL	**$290.7 billion**

Source: Heidenreich PA, et al, "*Forecasting the future of cardiovascular disease in the United States: a policy statement from the American Heart Association*" *Circulation* 2011;123(8):933–944 http://circ.ahajournals.org/content/123/8/933.full.pdf

Since LDL drugs are now generic and their benefits have plateaued, new drug development has shifted focus to raising HDL "good" cholesterol. However, this approach has been unsuccessful. Pfizer's Torcetrapib failed in 2006 when it was associated with more deaths, Roche's Dalcetrapib recently failed in May 2012 due to lack of efficacy and Abbott's Niaspan, which was originally approved in 1997, and does raise HDL, failed to reduce heart attacks or strokes in large controlled clinical trials. **In fact, recent research has begun questioning the link between HDL and heart attacks. People with the endothelial lipase gene that gives them naturally higher HDL levels throughout life did not have**

lower risk of heart attacks.[5] We expect similar results from Merck's Anacetrapib (however it does lower LDL), and Eli Lilly's Evacetrapib in late-stage clinical trials.

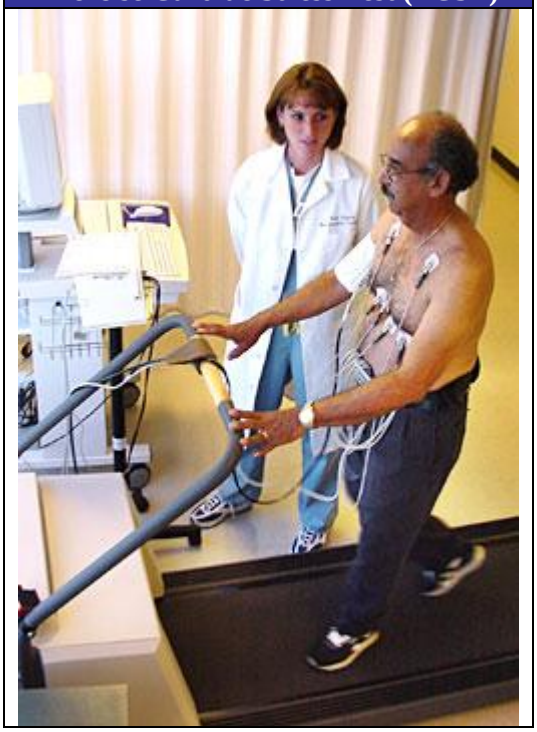
Therefore, we do not believe a pharmaceutical "cure" for coronary artery disease is likely or even possible within the foreseeable future as the biological mechanisms of action are complex and not yet well understood. **Therefore, we expect the demand for cardiac diagnostics, including FluoroPharma's imaging agents, to continue increasing as the population continues to age and the incidence of obesity continues to grow.**

Additional Research References
[1] World Health Organization "The Top 10 Causes of Death" http://www.who.int/mediacentre/factsheets/fs310/en/index.html
[2] U.S. Centers for Disease Control "Leading Causes of Death" http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_04.pdf
[3] NHLBI National Institutes of Health "*What Is Coronary Heart Disease?*" http://www.nhlbi.nih.gov/health/health-topics/topics/cad/
[4] Omudhome Ogbru Pharm.D.and Jay W. Marks, MD, "*Statins*", http://www.medicinenet.com/statins/article.htm
[5] Voight, B. et al, "*Plasma HDL cholesterol and risk of myocardial infarction: a mendelian randomisation study*" *The Lancet* May 2012 http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(12)60312-2/fulltext

Diagnosing Coronary Artery Disease (CAD)

An Electrocardiogram (EKG) is usually the first and simplest screening method for possible CAD and measures electrical changes in the heart rhythm (ST segment elevation). If the EKG shows changes in ST depressions or Q waves it may indicate CAD and the patient would then proceed to more definitive screening.

Exercise Cardiac Stress Test (ECST)

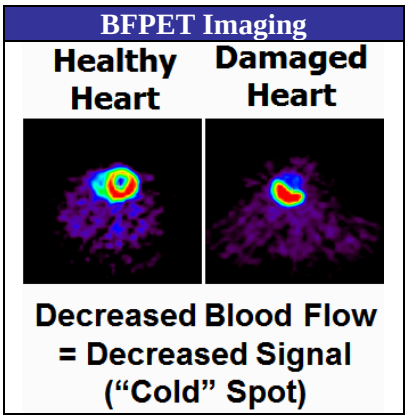


Source:Texas Heart Inst. St. Luke's Episcopal Hospital

The Exercise Cardiac Stress Test (ECST) is for those patients who are able to use a treadmill. During an ECST, the EKG monitors heart rate, heart rhythm, and blood pressure as the treadmill speed and inclination are increased every three minutes. If there is a blockage causing decreased blood flow to the heart during exercise, it may show on the EKG as well as heartbeat and blood pressure. However, the ECST results must be reviewed against the patient's known risk factors to be a valid diagnostic. In high-risk patients, an abnormal ECST is highly predictive of CAD. However, a fairly normal ECST in a high-risk patient may not adequately indicate the patient's true CAD status. For a low-risk patient, the opposite may be true as well (i.e., a normal ECST indicates absence of CAD while an abnormal ECST may be a false-positive).

If the ECST results do not accurately reflect the presence or absence of significant CAD, a radionuclide isotope injection is used during the stress test (called a Radionuclide stress test). Radionuclide stress testing currently involves injecting imaging agents such Cardiolite® (Technetium Tc99m sestamibi) or thalium-201 (*see Competition*) into a patient causing their heart to become visible with a nuclear imaging camera. The images are obtained while the patient is resting and then following exercise. When the two sets of images are compared, a relative "cold spot" will appear if a blockage in a coronary artery results in diminished blood flow to a part of the cardiac muscle after exercising (and not visible at rest when coronary flow is adequate). Radionuclide stress testing, while more time-consuming and expensive than a simple ECST, greatly enhances the accuracy in diagnosing CAD.

FluoroPharma's CAD Imaging Agents:



Source: FluoroPharma & LifeTech Capital

- ✓ **BFPET:** FluoroPharma's BFPET is being developed for use in combination with stress-testing in patients with presumptive or proven cardiac artery disease and has the potential to become the cardiac standard of care replacing Cardiolite®/SPECT with BFPET/PET in institutions with PET/CT imaging scanners. (*see BFPET*)
- ✓ **CardioPET:** For patients who are unable to perform exercise cardiac stress-testing, FluoroPharma is developing CardioPET for detecting regions of metabolic insufficiency to diagnose acute and chronic cardiac artery disease. (*see CardioPET*)
- ✓ **VasoPET:** Finally, FluoroPharma is developing VasoPET for patients that have already had a heart attack or stroke with the risk of a potentially fatal recurrence. VasoPET detects inflammatory cells and rapidly dividing cells to identify plaque that is likely to rupture and result in a recurring heart attack or stroke. (*see VasoPET*)

BFPET Molecular Imaging Agent

UPDATE:
FluoroPharma plans to initiate a Phase II clinical trial of BFPET in the second half of 2012. They expect to have BFPET manufactured and delivered to a PET cardiac center for direct comparisons between Rb-82 and/or traditional SPECT agents.

FluoroPharma's BFPET ([^{18}F]-labeled cationic lipophilic tetraphosphonium) is an imaging agent used in stress-testing for patients with presumptive or proven Cardiac Artery Disease (CAD). BFPET measures the cardiovascular blood flow through the detection of ischemic (reversibly damaged) and infarcted (irreversibly damaged) myocardium (heart) tissue. Its mechanism of action is to enter the myocardial cells of the heart muscle in direct proportion to blood flow and membrane potential (the most important indicators of adequate cardiac blood supply). Since ischemic and infarcted myocardial cells take up significantly less BFPET than normal healthy myocardial cells do, BFPET can distinguish ischemic and infarcted cells from those that are healthy.

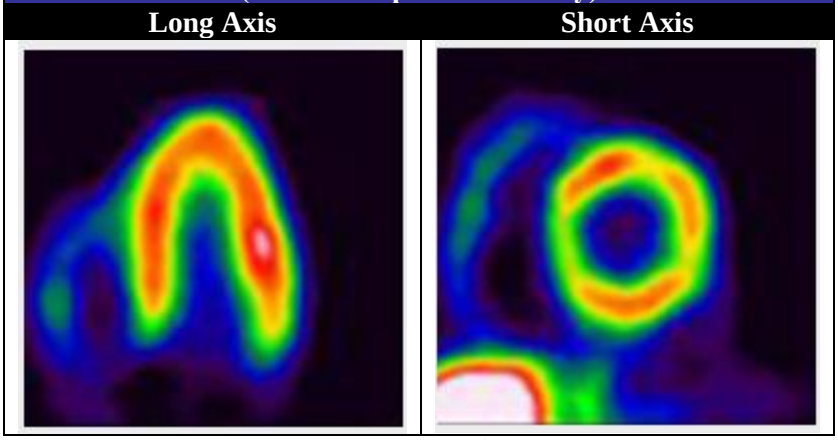
Currently, cardiac perfusion imaging is performed with SPECT tracers such Cardiolite®, Thallium-201 or the PET tracer Rubidium-82. However, SPECT imaging only has approximately 75% diagnostic accuracy with research showing that 10% of patients cleared as "normal" were subsequently found to be "abnormal" using PET imaging. The current PET tracer Rubidium-82 has experienced FDA recall and high cost issues. (*see Competition*)

Phase Ia Clinical Trial Completed
BFPET successfully completed the Phase Ia clinical trial in 12 healthy volunteers with no adverse events and no clinically significant changes noted in follow-up clinical and laboratory testing (trial ID# NCT00733460). The results of the trial demonstrated the required dosimetry, safety profile and high resolution myocardial imaging pharmacokinetics to justify a controlled Phase II clinical trial.

Although the Phase I trial was focused on safety, several beneficial characteristics of BFPET were seen:

- ✓ Rapid extraction of BFPET from the blood
- ✓ Stable heart uptake of BFPET over time
- ✓ High target to background ratios
- ✓ Convenient imaging window within 30 minutes of injection
- ✓ Whole body effective dose 73.5 ± 17.59 mrem/mCi

BFPET Uptake in Normal Healthy Volunteers (NHV)
(No "Cold Spots" = Healthy)



Source: FluoroPharma & LifeTech Capital

COMPLETED - PHASE I HUMAN CLINICAL TRIAL PROTOCOL	
Title	A Phase I Study to Evaluate the Safety, Biodistribution and Radiation Dosimetry of BFPET as a Potential Myocardial Perfusion Imaging (MPI) Agent for PET
# of Patients	Up to 23 (Male and Female)
Trial Design	Open-Label, Non-Randomized, Single Group Assignment, Diagnostic Safety Study
Ages	20 to 80 Years
Treatment	BFPET
Endpoints	Primary: To evaluate the safety, biodistribution, and radiation dosimetry of BFPET in healthy volunteers. Secondary: The evaluation of the performance characteristics of BFPET as a PET tracer for myocardial imaging.
Inclusion (Healthy)	• Subject must provide written informed consent prior to any study related procedures; • Subject must be ≥ 20 and ≤ 80 years of age; • Subject must have a serum creatinine within the investigational site's normal range. • Subject must have liver function tests < 1.5 times the investigational site's normal range. • Subject must have a hematocrit level within 5% of the investigational site's normal range.
Exclusion (Healthy)	• Any clinically significant acute or unstable physical or psychological disease based on medical history or screening physical examination; • Any clinically significant abnormality in the screening laboratory tests or ECG; • Any exposure to any investigational drugs within four (4) weeks prior to Visit 1; • Any exposure to investigational radiopharmaceuticals within four (4) weeks prior to the date of Visit 1; • Any new prescription medications within four (4) weeks of Visit 1; • Subject has a Positive (+) Serum Pregnancy Test, or the possibility of pregnancy cannot be ruled out prior to dosing or is breast-feeding. There are standard pregnancy procedures for use of radiopharmaceuticals in research at MGH. • Subject has experienced any allergic reaction to similar radiofluorinated compounds or agents.
Center	Massachusetts General Hospital, Boston, Massachusetts, United States, 02114
Investigator	Henry Gewirtz, M.D., Massachusetts General Hospital

Source: ClinicalTrials.gov NCT00733460

More background on the Phase I trial design is at http://www.clinicaltrials.gov/ct2/show/NCT00733460

CardioPET Molecular Imaging Agent

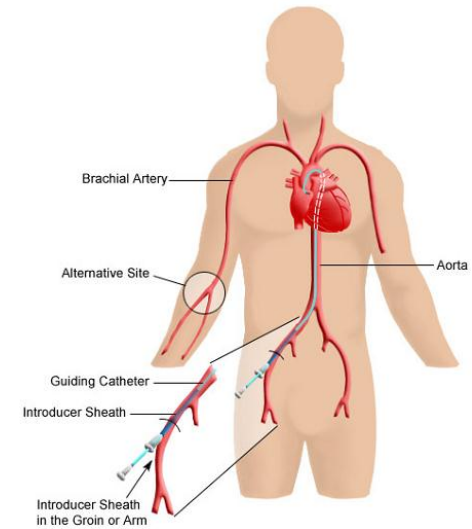
UPDATE:
On March 1, 2012, FluoroPharma announced their Phase II clinical trial plan for CardioPET. It will be an open label trial designed to assess the safety and diagnostic performance of CardioPET as compared to stress echocardiography, myocardial perfusion imaging and angiography as a gold standard of background disease. Specifically, the Phase II trial will consist of between 30-100 individuals with known stable chronic CAD **who cannot undergo stress-testing** for the evaluation of suspected or proven CAD. FluoroPharma could close out a phase IIa trial and switch the remaining enrolled patients into a Phase IIb trial in patients with acute CAD that are undergoing CVA for the prediction of functional improvement either prior to, or following, revascularization. **Two trial sites are currently planned in Belgium and results are expected in the second half of 2012.**

FluoroPharma's CardioPET (Trans-9-[^{18}F]-Fluoro-3, 4-Methyleneheptadecanoic Acid) is a molecular imaging agent to assess myocardial metabolism for patients with Coronary Artery Disease (CAD), **especially for patients who are unable to perform exercise cardiac stress-testing.** CardioPET allows for the detection of ischemic (reversibly damaged) and infarcted (irreversibly damaged) myocardium (heart) tissue in patients with presumptive or proven acute and chronic CAD.

In addition, CardioPET could be used for Cardiac Viability Assessment (CVA) for the prediction of improvement prior to and/or following revascularization in patients with acute CAD including myocardial infarction (heart attack). Because CardioPET allows for the identification of damaged but viable heart tissue, is important since revascularization in those patients with substantial viable myocardium results in improved left ventricular function and survival. **Since CardioPET provides the metabolic component for CVA, it could be used in combination with FluoroPharma's BFPET or other blood flow agents in performing CVA**.

Currently, these patients are typically imaged using an invasive procedure called coronary angiography, which uses a catheter, dye and an X-ray machine in a catheterization lab. A cardiologist inserts the catheter at the groin, into an artery, and carefully moves it up into the heart using the X-rays to position the catheter. The dye is injected into the catheter and X-ray images monitor how the dye moves through the artery showing blood flow blockages. This procedure can take up 60 minutes to perform.

Coronary Angiography



Source: Medtronic

However, results of the *Clinical Outcomes Utilizing Revascularization and Aggressive Drug Evaluation* (COURAGE) trial demonstrated that percutaneous coronary intervention (PCI) is not more effective for treatment of stable ischemic heart disease than optimal medical therapy (OMT). PCI did not improve survival or prevent myocardial infarctions more than OMT, and had a limited role in symptom relief.[1] **Despite the lack of effectiveness, the number of these procedures has not declined and remains well over 1 million annually in the U.S.**[2]

- ✓ **If approved, CardioPET may have several significant advantages for Cardiac Viability Assessment using PET scanners and would represent the first imaging agent available in the United States for patients that cannot undergo stress-testing with acute and chronic Coronary Artery Disease.**

- ✓ **Research has shown that PET imaging is cost-effective for CAD management and can result in a 50% reduction in the use of coronary arteriography and CABG, a 30% reduction in CAD management costs, and excellent short-term patient outcomes, compared with conventional SPECT imaging.**[3]

- ✓ **With over 1 million diagnostic angiography procedures and over 1 million PCI procedures performed annually in the U.S., the use of non-invasive CardioPET could result in very significant medical cost savings by avoiding unnecessary procedures.**

Additional Research References
[1] Boden W., et al "*Optimal Medical Therapy with or without PCI for Stable Coronary Disease*" *N Engl J Med* 2007; 356:1503-1516 April 12, 2007 http://www.nejm.org/doi/full/10.1056/NEJMoa070829
[2] Borden W., et al "*Patterns and Intensity of Medical Therapy in Patients Undergoing Percutaneous Coronary Intervention*" *JAMA* 2011;305(18):1882-1889 http://jama.jamanetwork.com/article.aspx?volume=305&issue=18&page=1882
[3] Merhige M., et al "*Impact of Myocardial Perfusion Imaging with PET and 82Rb on Downstream Invasive Procedure Utilization, Costs, and Outcomes in Coronary Disease Management*" *J Nucl Med* July 2007 vol. 48 no. 7 1069-1076 http://jnm.snmjournals.org/content/48/7/1069.full

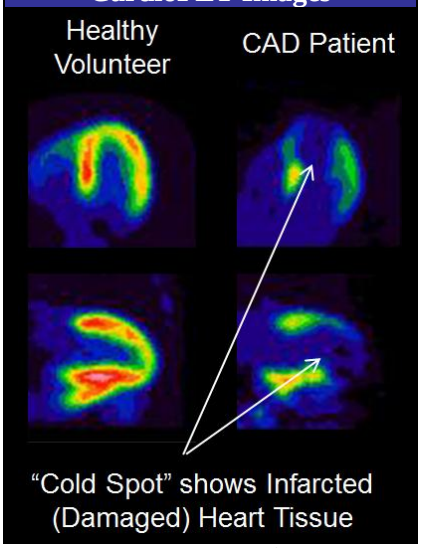
Phase I Clinical Trial Results

FluoroPharma has completed a Phase I clinical trial in 15 normal healthy volunteers (NHV) and 6 patients with coronary artery disease (CAD). Although the Phase I trial was focused on safety, several beneficial characteristics of CardioPET were also seen:

- ✓ **CardioPET is safe with no Adverse Events detected**
- ✓ **Clinical findings consistent with myocardial perfusion imaging using SPECT**
- ✓ **Quality of CardioPET images substantially superior to myocardial perfusion imaging using SPECT**

More background on the Phase I clinical trial design can be found at: http://www.clinicaltrials.gov/ct2/show/NCT00413647

CardioPET Images



Source: FluoroPharma & LifeTech Capital

COMPLETED - PHASE I HUMAN CLINICAL TRIAL PROTOCOL	
Title	A Phase I Study to Evaluate the Safety, Biodistribution and Radiation Dosimetry of CardioPET™ as a PET Tracer for Detection of Coronary Artery Disease
# of Patients	Up to 21 (Male and Female)
Trial Design	Open-Label, Non-Randomized, Crossover Assignment, Diagnostic Safety Study
Ages	50 to 85 Years
Treatment	CardioPET
Endpoints	Primary: To evaluate the safety, biodistribution, and radiation dosimetry of CardioPET in normal healthy volunteers and safety in CAD subjects. Secondary: • The evaluation of the performance characteristics of CardioPET as a PET tracer for myocardial imaging. • Evaluation and optimization of the methods of image acquisition, output processing, display, reconstruction, and imaging data.
Inclusion	Normal Healthy Volunteers: • Subject must provide written informed consent prior to any study related procedures • Subjects must be between the ages of 50 and 85 years of age. Coronary Artery Disease (CAD) subjects: • Subjects must provide written informed consent prior to any study related procedures; • Subjects must be ≥ 50 and ≤ 85 years of age; • Subject must have history of CAD documented by an exercise stress Myocardial Perfusion Imaging (MPI) study within 6 months documenting myocardial infarct without ischemia.
Exclusion	Normal Healthy Volunteers: • Any clinically significant acute or unstable physical or psychological disease based on medical history or screening physical examination • Any clinically significant abnormality in the screening laboratory tests or ECG • Fasting blood glucose level over 120 mg/dl • Any exposure to any investigational drugs with four(4)weeks prior to Visit 1

	• Any exposure to radiopharmaceuticals within four(4)weeks prior to the date of Visit 1 • Any new prescription medications within four(4)weeks of Visit 1 • Subject has a Positive (+) Serum and/or Urine Pregnancy Test or is lactating, or the possibility of pregnancy cannot be ruled out prior to dosing. There are standard pregnancy procedures for use of radiopharmaceuticals in research at MGH <u>Coronary Artery Disease (CAD) Subjects:</u> • Subject has a Positive (+) Serum and/or Urine Pregnancy Test or is lactating, or the possibility of pregnancy cannot be ruled out prior to dosing; • Any clinically significant acute or unstable physical or psychological disease judged by the investigators based on medical history or screening physical examination; • Coronary artery bypass graft (CABG) within 1 year; • Percutaneous coronary intervention (PCI), with stent placement within three months; • Blood pressure over 180/100; • Acute changes in ECG; • Cardiac ischemia identified by MPI stress test; • Recent (within 3 months) cardiac arrest, unstable angina, myocardial infarction, cerebro-vascular accident (CVA), any general anesthesia procedure, any surgical procedures; • Any implanted pacemaker or defibrillator use within the last three months; • Inability to remain in camera for approximately 60 minutes (Smokers and COPD are included as long as they can breathe in PET camera and not taking O2 through nasal canola); • History of Diabetes Mellitus; • Serum creatinine > 2 mg/dL; • All cancer and or chemotherapy patients; • Body Mass Index (BMI) is over 35; • Any exposure to any investigational drugs or medical device within four (4) weeks prior to imaging study; • Any exposure to radiopharmaceuticals within four (4) weeks prior to the date of imaging study; • High daily alcohol consumption over 4 alcohol drinks per day.
Center	Massachusetts General Hospital, Boston, Massachusetts, United States, 02114
Investigator	Alan J. Fischman, MD, PhD, Massachusetts General Hospital

Source: ClinicalTrials.gov NCT00413647

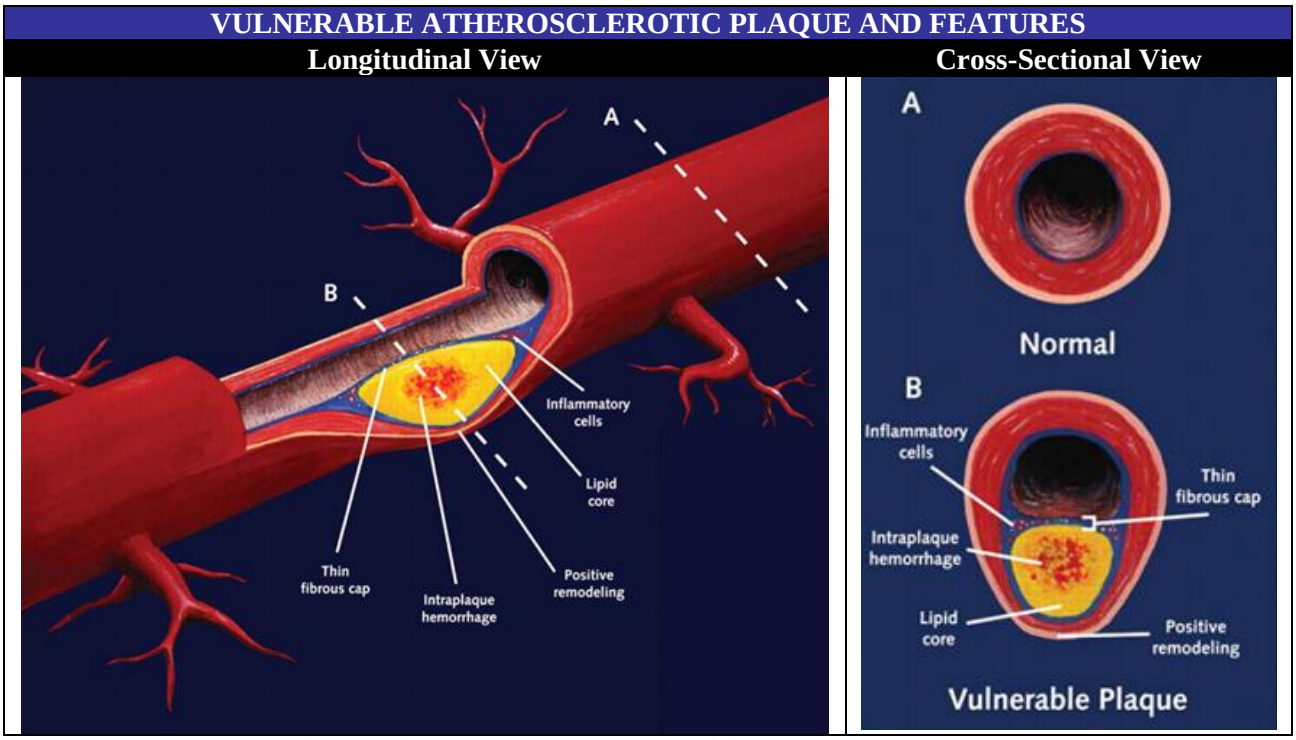
VasoPET Molecular Imaging Agent

<u>UPDATE:</u>
FluoroPharma is planning to initiate a Phase Ia safety and proof-of-principle clinical trial in carotid artery (head & neck) imaging, cardiac aorta imaging and patients with peripheral artery disease (PAD). **<u>We expect the IND to be filed with the FDA by the end of 2012 with the Phase Ia trial commencing shortly thereafter.</u>**

FluoroPharma's VasoPET (Diadenosine-5'5'''-P1, P4-tetraphosphate (Ap4A) analogs such as P2, P3-monochloromethylene diadenosine 5', 5'''-P1, P4-tetraphosphate (Ap2CHClp2A) is an imaging agent for the detection of "vulnerable" coronary artery plaque in patients with coronary artery disease (CAD).

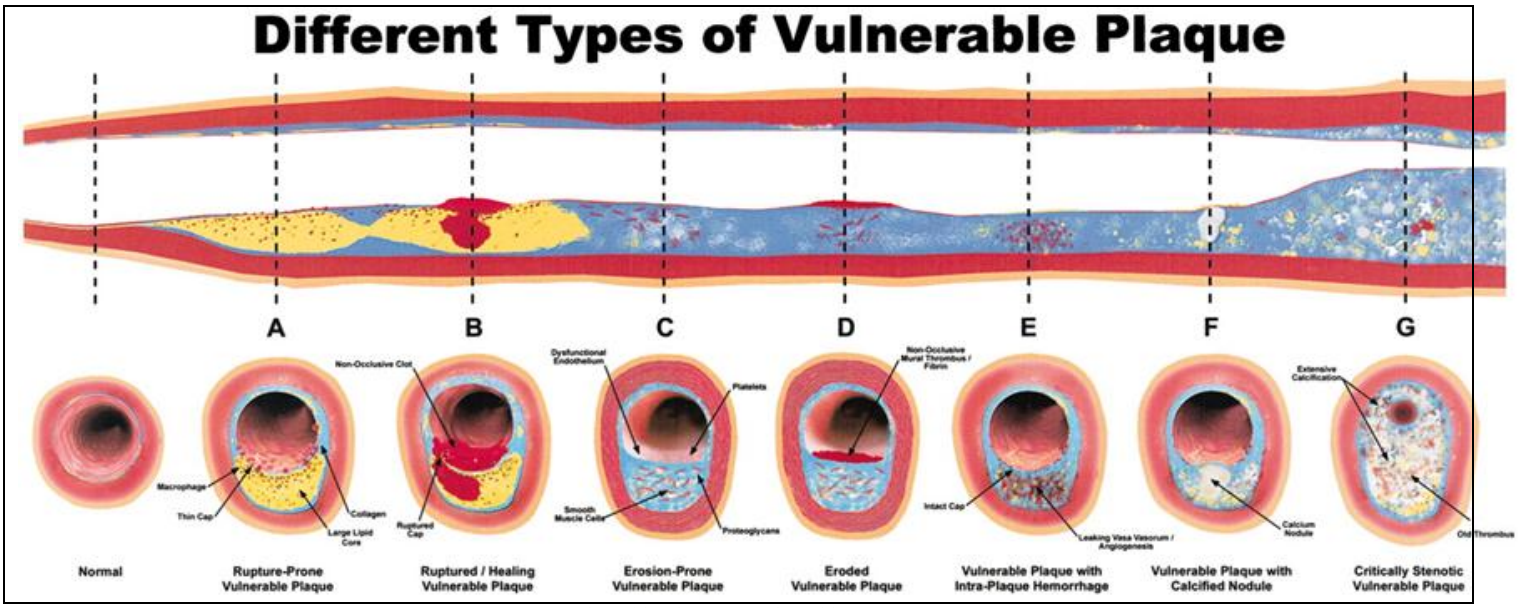
- ✓ **The rupture of atherosclerotic plaques and the subsequent formation of blood clots are the primary mechanisms of myocardial infarction (heart attack) and cerebral infarctions (stroke).**

- ✓ **Non-invasive detection of vulnerable plaque is a significant unmet need and a large unaddressed market opportunity with billions of medical costs currently being expended on heart attack and stroke victims.**



Source: Alsheikh-Ali A., et al *"The Vulnerable Atherosclerotic Plaque: Scope of the Literature" Ann Intern Med* Sept. 2010 vol. 153 no 6 387-395
http://www.annals.org/content/153/6/387.full

Coronary artery plaques grow over time and progressively narrow the lumen of the coronary artery until blood flow to the heart diminishes to a critical level. The decrease in blood flow causes symptoms of chest pain (angina), at first during exercise and then progressively during rest. Rupture of the plaque and/or clot formation overlying the plaque may then result in myocardial ischemia and/or myocardial infarction. Coronary artery plaque that is "vulnerable" is differentiated from its "stable" form by a large lipid-rich atheromatous core, a thin fibrous cap, and infiltration by inflammatory cells such as macrophages**. The risk factor for rupture (and subsequent heart attack) is currently thought to be independent of plaque size and arterial narrowing, but rather is thought to correlate more with the presence of inflammation**.



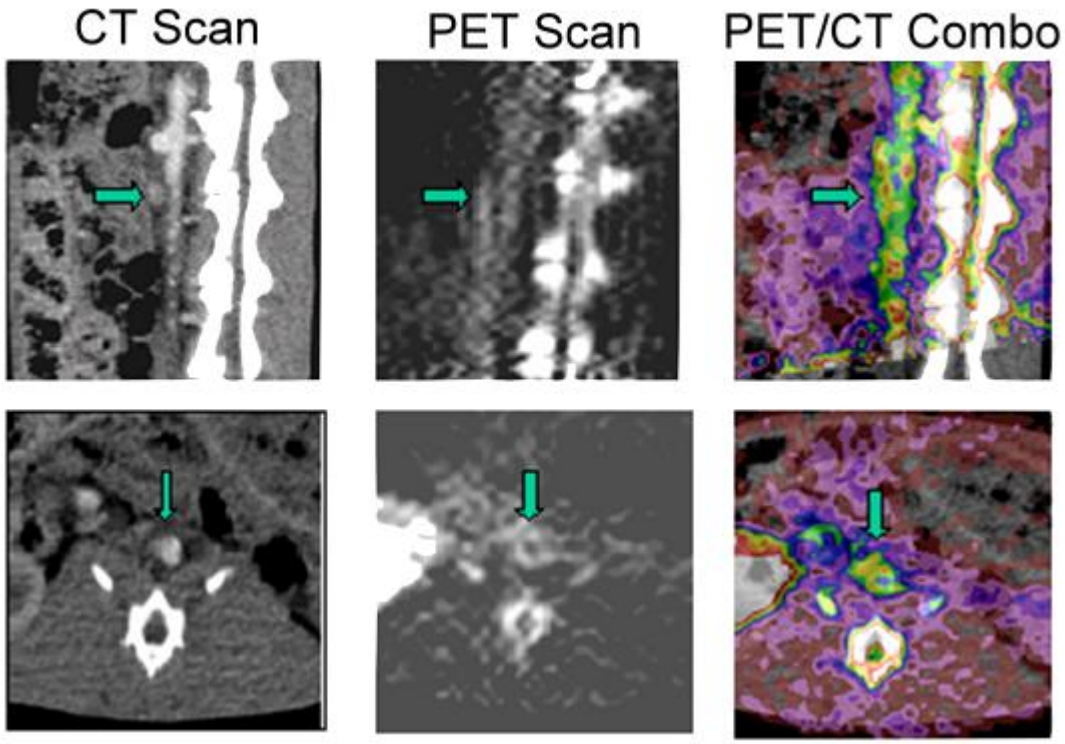
Source: Naghavi M., et al *"Review: Current Perspective From Vulnerable Plaque to Vulnerable Patient" Circulation* 2003; 108: 1664-1672
http://circ.ahajournals.org/content/108/14/1664.full

Currently, heart attack and strokes are the first indications of inflamed plaque in many victims, with approximately 50% of them expected to have another subsequent cardiac event. **FluoroPharma's VasoPET could provide early identification of patients at risk with inflamed plaques thus helping to potentially save billions in hospitalization costs annually**.

Inflamed plaques play a role at all stages of atherosclerosis development and VasoPET could not only provide diagnosis before symptoms occur but VasoPET may also be useful to drug development companies in their clinical trial programs.

- ✓ **VasoPET is taken up by inflammatory cells and rapidly dividing cells**
- ✓ **VasoPET is not taken up in stable plaque**
- ✓ **CT and MRI scans cannot differentiate inflamed from stable plaques**
- ✓ **VasoPET, if approved, would represent the first PET cardiac product to reliably image inflamed plaque and therefore may differentiate between vulnerable and stable coronary artery plaque.**

VasoPET Uptake in Inflamed Plaques Using PET/CT Image Coregistration



Source: Elmaleh D., et al "*Detection of inflamed atherosclerotic lesions with diadenosine-5',5'''-P1,P4-tetraphosphate (Ap4A) and positron-emission tomography*" *PNAS* October 24, 2006 vol. 103 no. 43 http://www.pnas.org/content/103/43/15992.full

PET/CT Imaging Scanners

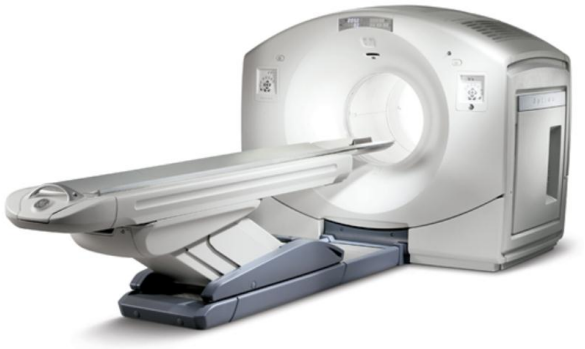
All of FluoroPharma's imaging tracers are used in conjunction with a PET scanner (Positron Emission Tomography). A PET scan shows cellular-level metabolic changes in a patient's organ or tissue. In order to get an image, a short-lived radioactive tracer isotope that emits positrons is given to the patient. Ordinarily, a tracer accumulates in areas that have higher levels of chemical activity (corresponding to the areas of disease) which shows up on a PET scan as a brighter "Hot" spot. However, in cardiac PET scans, the tracer is taken up in the healthy tissue, which has adequate blood flow and shows as a "Hot" spot while the damaged tissue has little to no uptake and thus shows as a "Cold" spot.

MRI (magnetic resonance imaging) and CT (computed tomography) scanners show anatomical structure rather than how the organs and tissues are working at a cellular level as shown in a PET scan. In addition, PET scans can perform quantitative measurements with each image voxel (volumetric pixel) providing a linear measure of tracer concentration.

Example of Cardiac Scan Facility

Source: The Heart & Vascular Institute of Florida

GE Optima PET/CT 560 Combination Scanner



Source: GE Healthcare

Typically, PET scanners are combined with a CT scanner in a single unit. This allows doctors to get both metabolic (PET) and anatomic (CT) scan for the patient while they remain in the same position thus improving correlation between the PET and CT images. This is important for moving organs and structures with high anatomical variations.

PET versus SPECT Imaging

Currently, SPECT (single-photon emission computed tomography) imaging is the leading modality for cardiac nuclear scanning despite the fact that PET scans provides better resolution and sensitivity. The reasons are economic as SPECT cameras are less expensive than PET and therefore have a larger installed base. As a result of the higher installed base and higher utilization rates, SPECT scanners were historically more profitable. However, research has shown that PET imaging is cost-effective for CAD management and can result in a 50% reduction in the use of coronary arteriography and CABG (coronary artery bypass graft surgery), a 30% reduction in CAD management costs, and excellent short-term patient outcomes, compared with conventional SPECT imaging.[1]

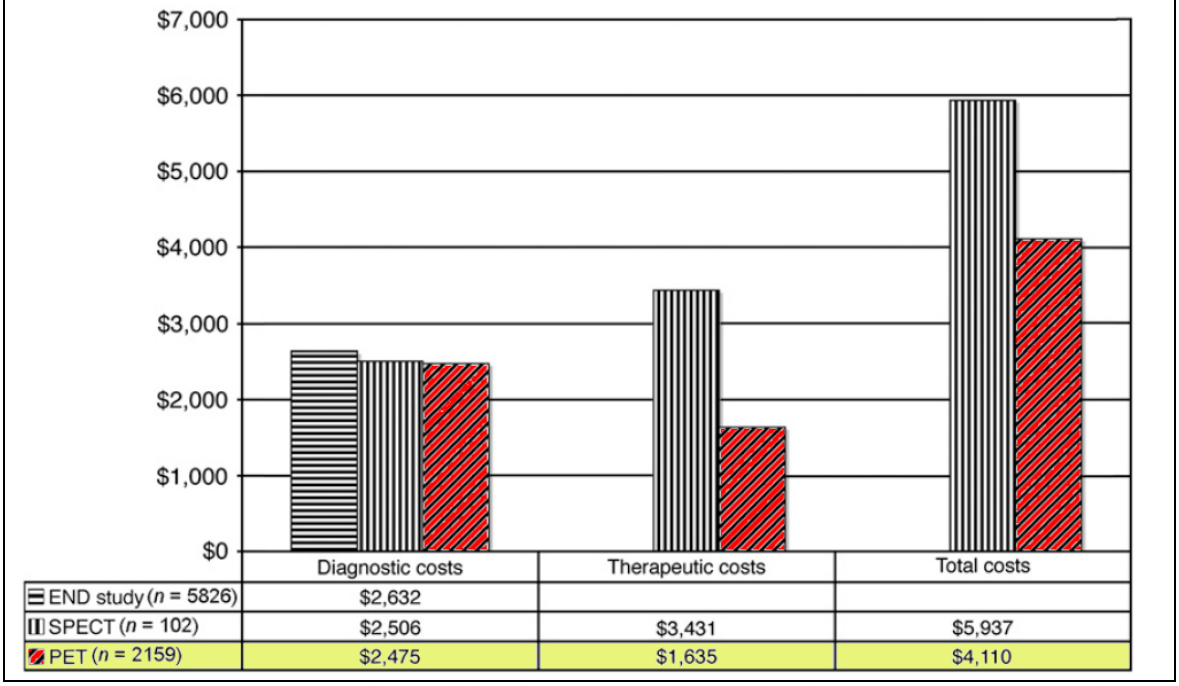
Resolution for Various Imaging Modalities

Method	Spatial Resolution	Temporal Resolution	Contrast Resolution
Ultrasound	<2 mm	< 10 ms	Single bubble
CT	< 0.3 mm	< 300 ms	>mM
MRI	< 0.8 mm	< 50 ms	mM
MRS	<10 mm	< 60 s	µM
SPECT	< 10 mm	< 5 s	pM - nM
PET	**< 5 mm**	**< 5 s**	**pM – nM**
Optical	0.1 - 5 mm	< 1 ms	fM – nM

Source: FluoroPharma

Healthcare professionals are now currently seeking to increase the utilization of PET/CT scanners, which will be driven by new indications made possible by new imaging agents such as FluoroPharma's BFPET, CardioPET and VasoPET. Study data also supports the use of PET over SPECT as it is insufficient for patients with suspected multi-vessel, balanced or diffuse CAD, morbidly obese (BMI > 40), cannot exercise, women with large breasts or implants or requiring rapid results. PET average procedure volume has now been increasing with scanner utilization improving.[2] This can been seen in the 9% volume increase of PET procedures to 2.1 million in 2010 and continuing the trend in 2011 as confidence has grown in PET's capabilities in diagnosis, staging and management of disease. Conversely, SPECT is a mature market with more than 85% of cameras purchased being replacements rather than new installations. 31% of all SPECT cameras in the U.S., or approximately 4,100, are dedicated cardiac cameras. Based on these trends, the number of new PET units is projected to surpass SPECT through 2020.[3]

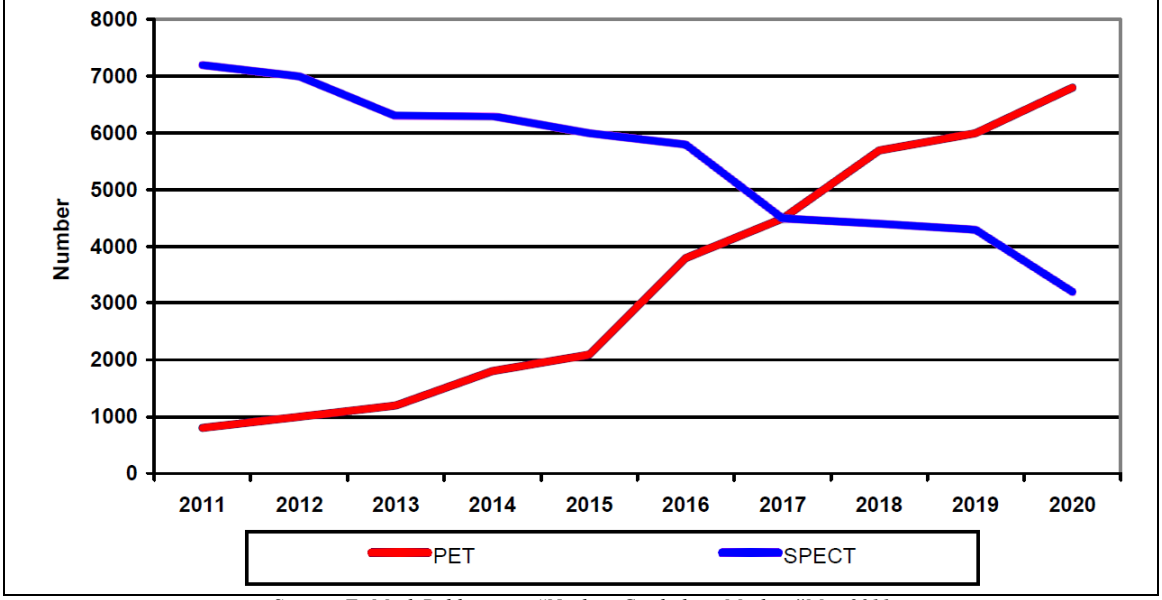
PET vs. SPECT Invasive Procedures, Costs & Outcomes in Coronary Disease Management



	Diagnostic costs	Therapeutic costs	Total costs
END study (*n* = 5826)	$2,632		
SPECT (*n* = 102)	$2,506	$3,431	$5,937
PET (*n* = 2159)	$2,475	$1,635	$4,110

Source: Merhige, M. et al, *"Impact of Myocardial Perfusion Imaging with PET and 82Rb on Downstream Invasive Procedure Utilization, Costs, and Outcomes in Coronary Disease Management" J Nucl Med* July 2007 vol. 48 no. 7 1069-1076

Projected Growth Rate for Cardiac PET Versus SPECT, 2011-2020



Source: TriMark Publications "Nuclear Cardiology Markets"May 2011

Additional Research References

[1] Merhige, M. et al, *"Impact of Myocardial Perfusion Imaging with PET and 82Rb on Downstream Invasive Procedure Utilization, Costs, and Outcomes in Coronary Disease Management" J Nucl Med* July 2007 vol. 48 no. 7 1069-1076 http://jnm.snmjournals.org/content/48/7/1069.full

[2] *BIO-TECH Report #340, The Market for PET Radiopharmaceuticals & PET Imaging* http://www.biotechsystems.com/reports/340/default.asp

[3] *Nuclear Medicine Market Outlook Report, IMV, 2011* http://www.imvinfo.com/index.aspx?sec=trtr&sub=dis&itemid=200149

Competition

Molecular Imaging Agents for PET

Bracco Diagnostics, division of Bracco S.p.A (private), markets CardioGen-82® (^{82}Rb) and is currently the only FDA-approved PET agent that is reimbursed for the evaluation of coronary artery disease. However, they experienced an FDA recall in July 2011 for radiation exposure (*see* http://www.fda.gov/Drugs/DrugSafety/ucm265278.htm) and in February 2012, the CardioGen-82 was reintroduced but required enhanced quality control with manufacturing and administration training (*see* http://www.snm.org/docs/3_26_2012_Bracco_Letter.pdf).

Flurpiridaz F18, being developed by Lantheus Medical Imaging (private), is a cardiac PET imaging agent for the evaluation of cardiac blood flow in patients with known or suspected CAD. In March 2011, Lantheus received a Special Protocol Assessment (SPA) approval from the FDA for two open-label, multicenter Phase III trials to assess the diagnostic efficacy, compared with SPECT, in the detection of significant coronary artery disease. The trials will enroll a total of approximately 1,350 patients worldwide, including locations in the U.S., Canada, Europe and South America. In June 2011, Lantheus initiated the first of the two Phase III trials (the trial design can be found at http://clinicaltrials.gov/ct2/show/NCT01347710).

Over 10 years ago, Proportional Technologies (private) filed a New Drug Application (NDA) for MyoPET™ (^{62}Cu-PTSM) and was subsequently required by the FDA to gather more data on safety monitoring and improving the statistical significance of the efficacy endpoints. To accomplish this would require potentially several hundred more studies whereas the original NDA reported only approximately 100 studies at two sites and the development current status is unknown.

There are also experimental imaging agents limited to research use in cardiac PET such as ^{13}N ammonia and ^{15}O water. However, their short half-lives of 10 minutes and 2 minutes respectively, limit their commercial potential.

Molecular Imaging Agents for SPECT

Cardiolite® (Technetium Tc99m Sestamibi) sold by Lantheus Medical Imaging, is currently the most commonly used SPECT agent in conjunction with exercise stress testing for the detection of CAD. (GE Healthcare's, a division of GE (NYSE:GE), Myoview® (Technetium Tc99m tetrofosmin) is similar to Cardiolite®). However, its resolution is limited by SPECT imaging technology and the degree of flow alteration with 53%-79% sensitivity and 76%-79% specificity for the elective detection of myocardial ischemia. In contrast, PET imaging has higher spatial resolution, improved attenuation correction, and the ability to provide quantitative measurements of uptake. PET imaging has a sensitivity range of 84%-97% and a specificity range of 82%-100% for the detection of ischemia. Also, because of its relatively low resolution, SPECT scans are not quantifiable thus ischemia due to multi-vessel CAD (20%-25% of CAD patients) cannot be reliably detected by SPECT. In contrast, PET scans are fully quantifiable and global ischemia can be detected as easily as regional ischemia.

Thallium-201 sold by Lantheus and Covidien (NYSE:COV) is an older blood-flow agent that was the previous standard before Cardiolite. It is somewhat less sensitive than Cardiolite, and is therefore losing market share to Cardiolite, but is still used, particularly in the non-emergent stress-test setting.

Perfusion imaging agents such as Cardiolite®, Myoview® and Thallium-201, are considered unable to reliably detect cardiac ischemia more than two hours after the cessation of chest pains, thereby making them of limited value in evaluating patients with resting ischemia.

BMIPP or Zemiva™ is an [^{123}I]-MFA SPECT agent by Molecular Insight Pharmaceuticals (private) successfully completed a Phase II trial study in the U.S. in 2009 (*see* http://content.onlinejacc.org/cgi/content/full/56/4/290) and is currently available in Japan for the diagnosis of CAD. However, Molecular Insight Pharmaceuticals is not actively developing Zemiva for the U.S. market and has been seeking to outlicense development for the required Phase III trials. While BMIPP is a metabolic agent similar to CardioPET, it uses SPECT which is not quantifiable and BMIPP must be manufactured at a single site in Vancouver, B.C. with a 13 hour half-life (CardioPET can be manufactured locally by adding [^{18}F] to FluoroPharma's stable precursor).

Molecular Imaging for MRI

Ablavar® (gadofosveset trisodium), sold by Lantheus, was FDA approved in 2008 for the evaluation of aortoiliac occlusive disease (AIOD) in adults with known or suspected peripheral vascular disease (PVD). Like all gadolinium agents, it has an FDA black box warning for skin and internal organ side effects, including nephrogenic systemic fibrosis (NSF) with the result that Ablavar sales in 2011 were only $18M. While MRI agents are potentially useful for anatomic delineation, they do not identify physiologic or biochemical processes. Cardiac MRI thus has promise in identification of coronary artery narrowing but PET imaging (as used with VasoPET) is superior in identifying metabolic changes within the plaque. Also, iron-oxide MRI agents are being developed for the identification of vulnerable plaque but they rely on changes in tissue morphology while VasoPET relies on altered cellular metabolism before or in the absence of morphologic change.

Market and Financial Assumptions

Markets

FluoroPharma's pipeline of cardiac PET imaging agent candidates can be considered "game-changers" in the molecular diagnostics space. However, this quality makes it difficult to calculate market projections, and in many respects, FluoroPharma is expected to help drive the cardiac PET market. The increasing adoption of PET for use in cardiac indications will be driven by the availability of new, approved PET cardiac imaging agents. This, in turn, is expected drive increased utilization and adoption of PET over SPECT beyond the current PET indications in oncology. (*see PET/CT Imaging Scanners*) Therefore, investors should note that the projected market sizes and adoption rates are subject to significant changes in final pricing, reimbursement and/or time horizons.

BFPET

As an example of myocardial perfusion imaging demand, we note that Lantheus' Cardiolite® sales (using SPECT) reached peak annual sales over $400M through 2007 until patent expiration in July 2008. Due to the generic competition and manufacturing issues, Cardiolite sales were just $65M in 2011 out of an estimated total generic market of $300M. We expect BFPET will compete against Lantheus' Flurpiridaz, which is currently in Phase III trials, however the larger sales variable is the installed base of PET versus SPECT imaging units. Our long-term projection of the PET myocardial imaging market opportunity is approximately $400M in 10 years (similar to the historical SPECT adoption curve) with FluoroPharma's BFPET capturing approximately 50% of the market or $200M. Investors should note that BFPET adoption will go hand-in-hand with PET installations and utilization in the cardiac space. We are projecting a market launch in H2 2016 with a conservative initial annualized adoption rate of 15% of FluoroPharma's projected market share increasing to 20% in 2017.

CardioPET

FluoroPharma's CardioPET represents a new market for patients who are unable to perform exercise cardiac stress-testing. We note that approximately 2M patients annually in the U.S. with chronic CAD undergo pharmacologic (adenosine or regadenoson) stress-testing due to an inability to perform exercise stress-testing. Since these can trigger fatal cardiac arrest, life threatening ventricular arrhythmias, and myocardial infarctions from the ischemia induced by the pharmacologic stress agents, we believe CardioPET represents a much more attractive and safer alternative in these patients. Furthermore, estimates show that an additional 1.5M million patients could benefit from cardiac viable assessment. Combined, our long-term projection of the PET at-rest CAD and CVA imaging market opportunity is approximately $500M in 10 years with FluoroPharma's CardioPET capturing approximately 50% of the market or $250M. While we do not anticipate immediate direct competition to CardioPET, adoption will also go hand-in-hand with PET installations and utilization in the cardiac space. We are projecting a market launch in H2 2016 with a conservative initial annualized adoption rate of 15% of FluoroPharma's projected market share increasing to 20% in 2017.

VasoPET

VasoPET is designed to identify vulnerable plaque from stable forms of plaque in the 30% of patients (4M patients) that have undergone conventional stress-testing and are diagnosed with chronic forms of ischemia. While this would represent a modest market size of approximately $75M, we believe that VasoPET usage could ultimately be expanded to an initial screening agent for atherosclerosis. This would represent an addressable market of almost 50M patients and using VasoPET in less than 1% of these patients would represent an additional $250M market. Again, expected VasoPET revenues will also correlate to PET installations and utilization in the cardiac space. We are projecting market launch in

2017 with a conservative initial adoption rate of 20% of FluoroPharma's projected market share for post-cardiac event imaging only.

Recent Financing Activity

As of December 31, 2011, FluoroPharma has raised aggregate gross proceeds of $7,093,065 pursuant to the May 2011 private placement agreement. Also as of December 31, 2011, there were 4,843,531 warrants outstanding with an average exercise price of $1.12 and there were 4,167,584 options outstanding with an average exercise price of $0.62 (exercisable options are shown below).

Warrants Outstanding as of 3/31/12		
Warrants	**Exercise Price**	**Years Remaining**
861,028	$0.83	4.22
86,250	$0.95	0.94
426,417	$1.00	2.10
3,432,336	$1.33	4.24
7,500	$2.00	0.12
4,813,531	**$1.21**	**3.98**

Source: FluoroPharma 10-K and 10-Q

Options Exercisable as of 3/31/12		
Options	**Exercise Price**	**Years Remaining**
15,000	$0.13	3.17
675,000	$0.17	7.36
600,000	$0.50	7.29
318,000	$0.67	0.75
91,463	$0.82	9.89
573,000	$0.95	4.82
-------	$1.05	9.69
165,000	$1.17	5.81
165,000	$1.33	6.67
35,714	$1.40	9.19
2,638,177	**$0.65**	**6.36**

Source: FluoroPharma 10-K and 10-Q

As of March 14, 2012, there were 22,310,894 shares of common stock outstanding. Although FluoroPharma believes they have sufficient cash through 2013, we expect the company to raise additional funds in preparation for their planned clinical trials in multiple indications and we have included our estimates in the financial model.

Intellectual Property

FluoroPharma has obtained the licenses to its patents and patent applications from the Massachusetts General Hospital, who is the patent assignee in each case. These patents cover all of the company's lead technologies and include additional indications that are outside the field of diagnostic cardiology. FluoroPharma intends to take the lead in the preservation and/or prosecution of these patent and patent applications going forward.

U.S. INTELLECTUAL PROPERTY			
NUMBER	**DESCRIPTION**	**ISSUED**	**EXPIRES**
7,632,485	Catalytic Radiofluoronation	12/15/09	2/24/25
7,790,142	Method for Monitoring Blood Flow and Metabolic Method for Uptake in Tissue with Radiolabeled Alkanoic Acid	9/7/10	2/3/25
7,438,891	Imaging Agents for Early Detection and Monitoring of Cardiovascular Plaque	10/7/08	9/8/18
7,060,251	Imaging Agents for Early Detection and Monitoring of Cardiovascular Plaque	6/13/06	9/8/18
6,299,857	Cardiovascular and thrombus imaging agents, methods and kits	10/9/01	12/27/16
6,187,286	Tumor imaging agents, methods and kits	2/13/01	12/27/16
5,716,594	Biotin Compounds for Targeting Tumors and Sites of Infection	2/10/98	6/6/14

Source: FluoroPharma and U.S. Patent and Trademark Office

MANAGEMENT

Johan M. (Thijs) Spoor Director, CEO & President

Mr. Spoor holds a Nuclear Pharmacy degree from the University of Toronto as well as an M.B.A. from Columbia University with concentrations in finance and accounting. Mr. Spoor has been a guest lecturer at Columbia Business School, Kings College in London and the University of Newcastle in Australia. Mr. Spoor previously held the title of CFO for Sunstone BioSciences for the period from February, 2010 through September 2010. Prior to joining Sunstone BioSciences, he worked as a consultant at Oliver Wyman from December 2008 through February 2010 focusing on helping pharmaceutical and medical device companies evaluate their global revenue potential given the complex interplay of regulatory approvals, the reimbursement environment, as well as the impact of physician preference within constantly evolving standards of care. He further specialized on the implications of healthcare reform on new product approval and health insurance reform. Mr. Spoor has also been an equity research analyst at J.P. Morgan from July 2007 through October 2008 and Credit Suisse from November 2005 through July 2007 covering the Biotechnology and Medical Device industries. Prior to his career on Wall Street Mr. Spoor worked in the pharmaceutical industry spending 11 years with Amersham / GE Healthcare where he worked in 7 countries in a variety of roles including setting up GMP facilities, accountability for the nuclear cardiology portfolio and most recently as the Director of New Product Opportunities leading the PET strategic plan.

Boyan Goumnerov, MD COO & Vice President Clinical Trials

Prior to his appointment with FluoroPharma Dr. Goumnerov has held executive positions in the healthcare and biomedical research fields most recent of which are President of VasoStent, Inc. and managing director of CardioVas Inc.- start-up medical device companies targeting the field of intravascular cardiac imaging and therapy. His academic background includes research within the departments of Surgery and Molecular Biology at the Massachusetts General Hospital (MGH) and The Shriners Burn Hospital for Children, Boston, where he held academic appointments with Harvard Medical School. Dr. Goumnerov also did extensive work within the Department of Pathology/Neuropathology at Children's Hospital Boston, in developing image analysis protocols for evaluation of neuromuscular diseases before moving to MGH. He is co-author of numerous scientific publications. Dr. Goumnerov obtained his M.D. from the Medical University of Sofia, Bulgaria, and worked as a clinician prior to relocating to the US.

BOARD OF DIRECTORS

Johan (Thijs) M. Spoor Director, CEO & President (*see Management*)

David R. Elmaleh, Ph.D. Chairman

Dr. Elmaleh founded FluoroPharma, Inc. in 2003. Dr. Elmaleh is an Associate Professor at Harvard Medical School since December 1976 and the Director of Contrast Media Chemistry at the Massachusetts General Hospital since December 1976. He is an inventor of three drugs that are in use in main or in late stage clinical trials including: The radiopharmaceutical preparation of (2FDG) which has been used in over a million PET imaging procedures, Beta-methyl modified fatty acid (BMIPP), a commercially successful cardiac SPECT agent in Japan, and Altropane which has completed Phase III clinical trials. His recent work has included extensive research on imaging compounds to improve the speed and effectiveness of cardiovascular disease diagnosis which constitutes the technology licensed from MGH to FluoroPharma. He is a co-author on over 120 publications and an inventor of over 40 issued and pending patents in a range of disciplines, including molecular imaging and CNS pharmaceuticals (neurodegenration and mental diseases). Dr. Elmaleh is a recipient of numerous NIH and DOE awards, and has participated as a reviewer for the National Institute of Health (NIH). He is the Scientific Founder of Biostream (now Molecular Insight Pharmaceuticals) and Mersana as well as several other start-ups. He holds a BSc in Physics and Chemistry, and an MS and PhD in Chemistry from the Hebrew University of Jerusalem.

Walter Witoshkin

Mr. Witoshkin was the Chairman and CEO of QuantRx Biomedical Corporation, a medical technology company with leading edge diagnostic and therapeutic technologies from April 2005 through August 2010. Mr. Witoshkin has held executive positions in the healthcare and pharmaceutical industries including senior financial positions at Wyeth Labs (American Cyanimade), VP Business Development and CFO positions at SmithKline Beecham (now Glaxo SmithKline)

and Menley & James Laboratories, Inc. He is a founding partner of the Trident Group, a global consultancy to the pharmaceutical industry.

Peter S. Conti, M.D., Ph.D.
Dr. Conti is a tenured Professor of Radiology, Pharmacy and Biomedical Engineering at the University of Southern California, as well as Director of the USC Positron Imaging Science Center and Clinic since its inception in 1991. He is also the Director of the Molecular Imaging Laboratory at USC. Dr. Conti received his medical and doctoral degrees from Cornell University, and completed his residency in Diagnostic Radiology and Fellowship in Nuclear Medicine at The Johns Hopkins Medical Institutions. Dr. Conti is Board Certified in both Diagnostic Radiology and Nuclear Medicine. He is a Fellow of the American College of Radiology and of the American College of Nuclear Medicine Physicians. He was elected to Best Doctors in America in 2005 and 2007, ranked in the top 10 in Nuclear Medicine in 2006 and 2007 by Medical Imaging, and included in the 25 Most Influential by RT Image. He has over 300 peer-reviewed scientific articles and abstracts in the field of Molecular Imaging. Dr. Conti is a past President of the Society of Nuclear Medicine (SNM), and continues to serve on a number of committees for the Society, including those involving government and regulatory affairs related to the development of Molecular Imaging technology and its applications in medicine. His research focuses on development of novel diagnostic imaging agents for oncology applications.

Lawrence Atinsky, JD
During the past seven years Mr. Atinsky has been a partner at Ascent Biomedical Ventures (ABV), a venture capital firm investing in seed and early-stage biomedical technology companies developing medical devices, biopharmaceuticals, healthcare services, and information technology. Prior to joining ABV, Mr. Atinsky was a Mergers & Acquisition attorney at Skadden, Arps, Slate, Meagher & Flom in New York, where he was involved in structuring and negotiating numerous private and public transactions. Mr. Atinsky has also been the General Counsel of several private companies in the healthcare industry and has been a founder and investor in early-stage medical technology companies. Mr. Atinsky earned a JD from New York University School of Law and B.A. degrees in Political Science and Philosophy from the University of Wisconsin-Madison.

SCIENTIFIC ADVISORY BOARD

Peter Conti, MD, PhD (*see Board of Directors*)

Daniel S. Berman, MD, FACC
Dr. Berman is Chief of Cardiac Imaging and Nuclear Cardiology at Cedars-Sinai Heart Center and Professor of Medicine at the David Geffen School of Medicine at the University of California, Los Angeles. Board certified in internal medicine and nuclear medicine, Dr. Berman is a world-renowned expert in nuclear cardiology, and is one of the principal developers of techniques that are currently widely used in nuclear cardiology. His recent work involves several clinical trials aimed at improving diagnostics of cardiovascular diseases. Board certified in internal medicine, cardiology and nuclear medicine, Dr. Berman completed residencies in internal medicine and nuclear medicine at UC, Davis and a fellowship in cardiology at UC Davis Medical Center. He received his MD degree from the University of California, San Francisco.

Elazer Edelman, MD, PhD
Dr. Edelman is the Thomas D. and Virginia W. Cabot Professor of Health Sciences and Technology at MIT, Professor of Medicine at Harvard Medical School, and a coronary care unit cardiologist at the Brigham and Women's Hospital in Boston. He and his laboratory have pioneered basic findings in vascular biology and the development and assessment of biotechnology. Dr. Edelman directs the Harvard-MIT Biomedical Engineering Center (BMEC), dedicated to applying the rigors of the physical sciences to elucidate fundamental biologic processes and mechanisms of disease. Dr. Edelman completed internal medicine training and clinical fellowship in Cardiovascular Medicine at the BWH and a research fellowship at the Department of Pathology at Harvard Medical School. Dr. Edelman received his MD degree from Harvard Medical School and a PhD in Medical Engineering and Medical Physics from MIT.

Heinrich Schelbert, MD, PhD
Professor of Pharmacology and Radiological Sciences and a Chief of Cardiovascular Nuclear Medicine at the UCLA School of Medicine. Dr. Schelbert has made several seminal contributions to the field of cardiac PET imaging including

development of a radiotracer techniques used in non-invasive blood flow imaging and characterization of the substrate metabolism in the human heart. His on-going research focuses on exploring the regulation of the coronary circulation in the human heart and on the noninvasive characterization of coronary endothelial function as a critical component in the development of atherosclerosis. He is the current Editor–In-Chief of the Journal of Nuclear Medicine. Dr. Schelbert completed residences in Cardiology/Physiology Research at the Heinrich-Heine-Universitat Duesseldorf, Germany and in Internal Medicine at the Mercy Catholic Medical Center. He received both his MD and PhD degrees from the University of Wuerzburg, Germany.

Andrew Selwyn, MA, MD, FRCP (UK), FACC

Dr. Selwyn is a Professor of Medicine at Harvard Medical School and a Senior Physician and Associate Chief of the Cardiovascular Division (academic affairs) at Brigham and Women's Hospital. He is a leading contributor to the research and clinical practice of interventional cardiology and biology of atherosclerosis. Dr. Selwyn conducted his postdoctoral training at the Royal Postgraduate Medical School in London. He received his MD degree from University of Cape Town, South Africa.

RISKS

Some of the operational and financial risks to FluoroPharma are:

- FDA and Regulatory risks: All of FluoroPharma's products are reliant on approvals by the U.S. FDA and other national regulatory bodies. There can be no guarantee of timely or definite FDA or other national regulatory body approvals for any of their product candidates.

- Small-Capitalization and Liquidity: FluoroPharma currently trades on the OTC Bulletin Board which may result in both lower trading volume and liquidity possibly leading to large spreads and high volatility in the stock price. Investors should note that small-cap stocks have additional risks that may result in trading at a discount to their peers. Investors should also note the higher probability of financial default and higher degree of financial distress inherent in the small-cap segment of the market.

- Need to Raise Additional Funds: While FluoroPharma has sufficient cash for near-term development, we believe that FluoroPharma will be required to raise additional funds through the issuance of stock which would be dilutive to existing shareholders and could potentially affect the share price. We have included estimates of future share issuance in our financial model but there can be no guarantee that our estimates are accurate.

- Reimbursement: FluoroPharma's business is dependent on government and private insurance for reimbursement with Centers for Medicare and Medicaid Services (CMS) providing significant coverage as well as payment by other national entities. Should the current or anticipated reimbursement rates be reduced, consolidated or eliminated, FluoroPharma's business would be adversely impacted.

- Partnerships: FluoroPharma is currently dependent on partners for Manufacturing, development, clinical trials and/or regulatory filings of some its products and may be reliant on future partners to successfully market its products. Failure of FluoroPharma's existing or future partners to perform satisfactorily or in a timely fashion could adversely impact the company's financial position.

- Patent Litigation: Third-party claims of infringement of intellectual property could require FluoroPharma to spend time and money on defending their intellectual property rights up to and including adverse judgments against FluoroPharma.

- Sector Rotation: FluoroPharma is a small medical device company often kept in a portfolio with similar companies. In such cases, a significant event for one company may have a material impact on the valuation of all similar companies regardless of their unique qualities.

FluoroPharma Medical
Consolidated Income Statement

FYE Dec 31st	1Q11	2Q11	3Q11	4Q11	2011	1Q12	2Q12E	3Q12E	4Q12E	2012E	2013E	2014E	2015E	2016E	2017E
BFPET	0	0	0	0	0	0	0	0	0	0	0	0	0	15,000	40,000
CardioPET	0	0	0	0	0	0	0	0	0	0	0	0	0	19,000	50,000
VasoPET	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15,000
Total Revenues	0	0	0	0	0	0	0	0	0	0	0	0	0	34,000	105,000
Cost of Goods Sold	0	0	0	0	0	0	0	0	0	0	0	0	0	17,000	52,500
Gross Profit	0	0	0	0	0	0	0	0	0	0	0	0	0	17,000	52,500
Research & Development	0	245	10	386	641	295	354	425	510	1,584	1,615	1,648	1,680	1,714	1,748
Selling, General and Administrative	5	1,506	270	294	2,075	278	334	400	480	1,492	1,522	1,553	1,584	5,615	11,728
Professional Fees	0	182	150	351	683	356	374	392	412	1,534	1,565	1,596	1,628	1,661	1,694
Depreciation & Amortization	0	10	10	21	41	8	10	12	14	43	44	45	46	46	47
Total Operating Expenses	5	1,943	440	1,052	3,440	937	1,071	1,229	1,416	4,653	4,746	4,841	4,938	9,037	15,218
Income from Operations	(5)	(1,943)	(440)	(1,052)	(3,440)	(937)	(1,071)	(1,229)	(1,416)	(4,653)	(4,746)	(4,841)	(4,938)	7,963	37,282
Interest Income	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest Expense	(1)	(106)	(1)	(5)	(113)	0	(5)	(5)	(5)	(15)	(20)	(20)	(20)	(20)	(20)
Change in Derivative Liabilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gain on Extinguishment of Debt	36	113	0	(24)	125	124	0	0	0	124	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Income/Expense	35	7	(1)	(29)	12	124	(5)	(5)	(5)	109	(20)	(20)	(20)	(20)	(20)
Income Before Tax	30	(1,936)	(441)	(1,081)	(3,428)	(813)	(1,076)	(1,234)	(1,421)	(4,544)	(4,766)	(4,861)	(4,958)	7,943	37,262
Provision for Income Taxes [1]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,697
Net Income (Loss)	30	(1,936)	(441)	(1,081)	(3,428)	(813)	(1,076)	(1,234)	(1,421)	(4,544)	(4,766)	(4,861)	(4,958)	7,943	31,566
Perferred Stock Dividends	0	(841)	(39)	(97)	(977)	(40)	(40)	(40)	(40)	(160)	(160)	(160)	(160)	(160)	(160)
Net Income Applicable to Common	30	(2,777)	(480)	(1,178)	(4,405)	(853)	(1,116)	(1,274)	(1,461)	(4,704)	(4,926)	(5,021)	(5,118)	7,783	31,406
EPS - Diluted	$0.00	($0.18)	($0.02)	($0.05)	($0.25)	($0.04)	($0.05)	($0.05)	($0.05)	($0.19)	($0.15)	($0.13)	($0.11)	$0.15	$0.56
Shares Outstanding - Diluted	11,000	15,642	20,968	23,195	17,732	22,337	22,784	27,340	27,887	25,087	33,465	40,158	48,189	53,008	55,659

Balance Sheets
(in $millions)

Assets:	12/31/11	3/31/12
Cash and Cash Equivalents	$3,265	$2,386
Accounts Recievable, Net	0	0
Inventories	0	0
Prepaid Expenses & Other	50	32
Total Current Assets	$3,315	$2,418
Property and Equipment, Net	170	195
Patents and Trademarks, Net	61	60
Other Assets	0	0
TOTAL ASSETS	$3,546	$2,673
Liabilities:		
Accounts Payable	$341	$104
Accrued Liabilities and Other	39	6
Derivative Liabilities, ST	0	0
Total Current Liabilities	$380	$110
Derivative Liabilities, LT	0	0
Other Liabilities	0	0
Stockholders' Equity	3,166	2,563
TOTAL LIAB. & EQ	$3,546	$2,673

NOTES

[1] As of December 31, 2011 FluoroPharma had NOL carryforwards of approximately $9.7M

DISCLOSURES

Ratings and Price Target Changes over Past 3 Years
Initiated May 29, 2012 – Strong Speculative Buy - Price Target $2.50

Analyst Certification: I, Stephen M. Dunn, the author of this research report certify that a.) All of the views expressed in this report accurately reflect my personal views about any and all of the subject securities or issuers discussed b.) No part of my compensation is directly or indirectly related to the specific recommendations or views expressed in this research report and c.) Analysts may be eligible to receive other compensation based upon various factors, including total revenues of the Firm and its affiliates as well as a portion of the proceeds from a broad pool of investment vehicles consisting of components of the compensation generated by investment banking activities, including but not limited to shares of stock and/or warrants, which may or may not include the securities referenced in this report.

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Does the Analyst or any member of the Analyst's household have a financial interest in any securities of the Company?	NO
Does the Analyst or any member of the Analyst's household or Firm serve as an officer, director or advisory board member of the Company?	NO
Has the Analyst or any member of the Analyst's household received compensation directly or indirectly from the Company in the previous 12 months?	NO
Does the Firm or affiliates beneficially own ≥1% of the Company's common stock?	NO
Has the Firm or affiliates received investment banking services compensation in previous 12 months?	NO
Has the Firm or affiliates received non-investment banking securities-related services compensation in previous 12 months?	NO
Does the Firm or affiliates expect to receive or intend to seek investment banking compensation in next 3 months?	YES
Has the Firm or affiliates received non-securities services compensation in previous 12 months?	YES
Does the Firm or affiliates make a market in the Company's securities?	NO

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Ratings Definitions: 1) **Strong Buy**: the stock is expected to appreciate and produce a total return of at least 40% over the next 12-18 months; 2) **Buy**: the stock is expected to appreciate and produce a total return of at least 20% over the next 12-18 months; 3) **Strong Speculative Buy**: the stock is expected to appreciate and produce a total return of at least 40% over the next 12-18 months but **the volatility and investment risk is substantially higher** than our "Strong Buy" recommendation; 4) **Speculative Buy**: the stock is expected to appreciate and produce a total return of at least 20% over the next 12-18 months but **the volatility and investment risk is substantially higher** than our "Buy" recommendation; 5) **Neutral**: the stock is fairly valued for the next 12-18 months; 6) **Avoid/Sell**: the stock is expected to decline at least 20% over the next 12-18 months and should be avoided or sold if held; 7) **Under Review**: the previous rating and/or price target is suspended due to a significant event which now requires additional analysis and the previous rating and/or price target cannot be relied upon; 8) **Not Rated**: the stock has too much business or financial uncertainty to form an investment conclusion or is currently in the process of being acquired and 9) **Restricted**: coverage cannot be initiated or has been temporarily suspended to comply with applicable regulations and/or firm policies in certain circumstances such as investment banking or an advisory capacity involving the company.

LifeTech Capital Research Ratings Distribution	Research Coverage % of Total	Investment Banking % of Total
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Strong Speculative Buy	100%	20%
Buy	0%	0%
Speculative Buy	0%	0%
Neutral	0%	0%
Avoid/Sell	0%	0%
Under Review	0%	0%
Not Rated	0%	0%
Restricted	0%	0%
Total	100%	20%

FINRA RULE 2711 Ratings Distribution	Research Coverage % of Total	Investment Banking % of Total
Buy	100%	20%
Hold/Neutral	0%	0%
Sell	0%	0%
Total	100%	20%

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Boca Raton Office
4431 Woodfield Blvd.
Boca Raton, FL 33432
Tel: 561-988-9129
Fax: 561-988-9129

San Francisco Office
One Market Street
Spear Tower, 35th Floor
San Francisco, CA 94105
Tel: 415-293-8142

New York Office
17 Park Avenue #201
New York, NY 10016
Tel: 917-834-7206
Fax: 415-887-7814