

## COUNCIL ON DEVELOPMENT FINANCE

July 26, 2010  
PUBLIC HEARING 362

### **THOSE PRESENT:**

Mr. Andy Lubin, Chairperson  
Honorable Nancy Cook  
Mr. Tom Gilligan  
Mr. Donald Lynch  
Mr. Jack Riddle  
Mr. Fred Sears  
Mrs. Richelle Vible

Director Alan Levin  
Mr. Gary Smith  
Mr. Stephen Bach  
Ms. Rachael Onorato  
Mrs. Lee Porter  
Mrs. Barbara DeHaven  
Ms. Patty Cannon  
Ms. Nikki Lavoie  
Mrs. Bernice Whaley  
Ann Marie Johnson, Deputy  
Attorney General

**ALSO PRESENT:** **First State Innovation** – Mr. Ernest J. Dianastasis; **Pair Technologies, LLC** – Mr. Scott Jones, Mr. Bruce Chase and Mr. Jim Malone; **Applied Diamond, Inc.** – Mr. Joe Tabeling and Mr. Peter Morton; **ELCRITON, Inc.** – Dr. Bryan Tracy; **Compact Membrane System, Inc.** – Mr. Louis C. Dinetta and Praveen Kosaraju, PhD; and Mr. Joe Matteo with Magnus

**LOCATION:** Department of Transportation, 800 Bay Road, Dover, Delaware 19903

**TIME:** 9:00 A.M.

### **CALL TO ORDER**

The meeting was called to order at 9:05 A.M. by Mr. Lubin, Chairperson, on Monday, July 26, 2010.

### **OLD BUSINESS:**

Mr. Sears made a motion that the minutes of the May 24, 2010 Council on Development Finance meeting be approved as presented. Mr. Gilligan seconded the motion which was then adopted by unanimous vote.

### **NEW BUSINESS:**

**First State Innovation/FSI Angel Fund, L.P. (“FSI” or the “Applicant”)** – The Applicant is requesting an investment in the amount of \$250,000 from the Delaware

Strategic Fund. The funds will be used to purchase membership in the FSI Angel Fund, LP which is an Angel Fund to be administered by FSI Angel Investors GP, LLC (the "Project"). These investments will be made State-wide.

Mr. Dianastasis, Chairman of FSI presented this request to the Council. He stated FSI is a 501(c)(3) corporation created and led by private, public and academic sectors to accelerate the creation of early stage entrepreneurial companies. He stated there are six entrepreneurs serving on the Board. Governor Markel and former Governor Pete DuPont are also on the Board.

Mr. Dianastasis stated the availability of cash and support for entrepreneurs is what is missing. He stated Delaware has always struggled with having a strong flow of investment capital. He stated this will be the first angel fund in Delaware. He stated this angel fund will provide the infusion of cash and present an opportunity to these companies to get from the early seed stage to the point of obtaining investors.

Mr. Dianastasis stated FSI will have a very important role. There will be fifty to eighty investors. Each investor will contribute a minimum of \$50,000 each. The fund will close this year and it is anticipated that they will raise between \$3-6 million initially. Approximately half of the funds have been raised to date, and he believes that over the next few months, the remainder of the funds will be obtained. He believes it is very important for the State to show support. He believes showing a combined effort sends a strong signal to other investors, and will be helpful in obtaining additional investments.

Mrs. Vible stated that it was her understanding that the funds provided by the State would be used to fund Delaware jobs only. She asked how the investors' funds would be used. Mr. Dianastasis stated that the State funds would go towards Delaware businesses. The actual fund is "regional" in scope as most investors and entrepreneurs are not concerned with regional boundaries. He stated you have to be a regional player. He stated FSI has a very strong Delaware focus. FSI hosted an event last week in which approximately one hundred people attended. He stated that entrepreneurs came to present their case and that three out of four of them were from Delaware. He stated the funds will be specifically tagged for Delaware. Mrs. Vible asked if any of the other investors were restricting their funds. Mr. Dianastasis indicated that they were not currently restricting funds. Director Levin stated that the importance of keeping these funds in Delaware has been made clear in all of the discussions and of how strongly it was felt that the funds be restricted to Delaware companies. He does not think it will inhibit the use.

Mr. Sears stated that a venture fund created in the 1990s called Blue Hen Capital also promised to only fund Delaware companies. However, they came back and said they couldn't find any Delaware companies. Mr. Sears asked if Mr. Dianastasis thought there was any chance that FSI would find it difficult to find Delaware businesses to fund. Mr. Dianastasis did not believe that this would be a problem. Mr. Sears also asked why it took so long to bring this before the Council as the request letter was dated February 15,

2010. Director Levin stated that FSI has been going through an organizational process. Mr. Dianastasis stated it takes a year to get the fund together. He stated that Chris Starr, one of the members, has a very strong background in working with venture capital companies. He stated the Angels will meet once a month and vote on these companies. A typical project is usually \$150,000 to \$200,000. The company gets the money and with that comes some ownership for the Angels. The next stage is usually a side offer if the Angels can do it they want to, but the Fund will be for the initial investment.

Senator Cook stated that there is already a statutory venture capital fund in Delaware. She asked if DEDO intended to continue that program. She asked if DEDO intended to continue that program. Director Levin stated that when Governor Markel came into office, because of the shortfall, \$2,500,000 was taken out of the venture capital fund by the Budget Office leaving a balance of \$1,750,000. Subsequently, all remaining program funds were merged into the Delaware Strategic Fund. Director Levin reiterated the State's commitment to the program, but indicated that during the past year, DEDO felt it necessary to fund "hard" investments that would produce jobs. He also stated that Governor Markel has said he would like DEDO to put life back into the program. Director Levin stated that if the State is fortunate with projects like Sallie Mae and Fisker, the State can drop its unemployment level down to six percent, then DEDO can take its focus back to entrepreneurs. Director Levin stated that by funding FSI, the State is maintaining its commitment to the development of entrepreneurial businesses.

Mr. Gilligan asked what DEDO's role was beyond today and going forward? Mr. Dianastasis stated that DEDO will have a seat at the Angel meeting and have a voting share.

Mr. Riddle asked Mr. Dianastasis if other states had been approached. Mr. Dianastasis stated that they are not approaching other states. They will be approaching other investors but no other public sectors. Mr. Riddle asked if the \$250,000 was being put in up front or was it being spread out? Director Levin stated that those specifics have not been addressed yet. It could be funded on an "as needed" basis. Mr. Dianastasis stated that whatever DEDO preferred was fine.

Mr. Lubin asked if there were any public comments; there were none.

After consideration, Mr. Sears made a motion that the Council recommend to Director Alan B. Levin, Chairperson, The Delaware Economic Development Authority, approval of the Applicant's request for an investment in the amount of \$250,000 from the Delaware Strategic Fund to be used to purchase membership in the FSI Angel Fund, LP which is an Angel Fund to be administered by FSI Angel Investors GP, LLC. Mrs. Vible seconded the motion, which was then adopted by unanimous vote except for Mr. Lubin who abstained due to a possible conflict of interest.

**Pair Technologies, LLC (“Pair” or the “Applicant”)** – The Applicant is requesting a grant in the amount of \$50,000 from the Delaware Strategic Fund under the Delaware Technical Innovation Program to provide funding between its Phase I and Phase II Grant Application, entitled, “A Compact Rugged Double Beam Infrared Spectrometer” (the “Project”). This Applicant is located at 1 Innovation Way, Suite 304 in Newark, Delaware 19711.

Mrs. DeHaven presented this request to the Council. She stated that Pair has received a previous SBIR grant. She also stated it has received Phase I funding and has applied for Phase II funding.

Mr. Jones stated that Pair is a startup company based in Newark, Delaware which has been active for approximately three years. He stated they recently completed a Phase I NIH STTR and have applied for the Phase II funding. The University of Delaware is the contract laboratory. He stated the focus is on the planar-array infrared spectroscopy devices. He stated that the infrared technology is very common. He stated that ninety percent of existing grants involve infrared technology.

Mr. Jones stated that Pair has a very portable, fast, sensitive instrument that opens up a very vast opportunity to manufacture these devices. He stated the Phase II is based upon the development of a microscope based version of this current instrument. He stated this is a very early technology. He also stated that the sales pipeline identifies new applications and targets early adopters.

Mr. Jones stated Pair hopes to be working with Air Liquide which has expressed interest. He stated there is a very large market potential. He stated currently this instrument has been included in several other applications to NIH and other government agencies.

Mr. Jones stated that Pair has added some employment and have two contracts with the University of Delaware. He stated Pair is Delaware focused on all aspects and it expects to hire additional employees. He stated they are planning to raise funds with outside investors. He stated some of the companies on their list have expressed an interest in investing.

Mr. Jones stated that they do have an additional STTR that they are planning. Mr. Sears asked the timing on this next grant’s Phase II. Mr. Jones stated they should hear from the NIH in late 2011; the panel meets in October, so it should be in the spring before the funds are disbursed and they are able to get started.

Mr. Sears asked if they were confident on getting the Phase II for this current project. Mr. Jones stated that the chance is one out of three. He also stated that there is an extension of funds available on the Phase II which they have requested and which should be decided upon shortly.

Mr. Lubin reminded Mr. Jones of the limitation of four SBIR/STTR grants for a company that can be awarded by the Council in a ten year period.

Mr. Jones stated he wants very much to get into the commercialization aspect.

Mr. Lubin asked if there were any public comments; there were none.

After duly considering, inter alia, the nature of the business, that the Applicant is a “small business” within the meaning of 29 Del. C. §5035 (b)(3), that the Applicant has won a Phase I award in the Federal STTR Program, that the Applicant has submitted a proposal for a Phase II STTR award but has not yet received such award, that the Applicant’s principal place of business will be located in the State of Delaware; and that the research to be conducted will benefit the Delaware economy, and other requirements under applicable statutory and regulatory provisions, Mr. Gilligan made a motion that the Council recommend to Director Alan Levin, Chairperson of The Delaware Economic Development Authority, approval of a grant in an amount not to exceed Fifty Thousand Dollars (\$50,000) to be disbursed from the Delaware Technical Innovation Program (“DTIP”), to be used for the Project, contingent upon the approval remaining in effect through and including July 25, 2011. Mr. Riddle seconded the motion, which was then adopted by unanimous vote.

**Applied Diamond, Inc. (“Applied Diamond” or the “Applicant”)** – The Applicant is requesting a grant in the amount of \$50,000 from the Delaware Strategic Fund under the Delaware Technical Innovation Program to provide funding between its Phase I and Phase II Grant Application, entitled, “A New Approach to Diamond-Based High Heat Load Monochromators” (the “Project”). This Applicant is located at 3825 Lancaster Pike in Wilmington, Delaware 19805.

Mrs. DeHaven presented this request to the Council. Mr. Tabeling, President, stated that Applied Diamond is a small manufacturer of diamond parts for technical and scientific applications. It grows polycrystalline diamond films by a Chemical Vapor Deposition process. Mr. Tabeling stated they serve a wide range of markets such as biological and research markets, provides diamond parts for fiber optic communications, semiconductor wafers, other high powered electronic devices and analytical devices. He stated they make a lot of parts for the infrared spectrotographer. He stated Applied Diamond has seen a lot of interest from the DOE. As a result of that, Applied Diamond has started to develop products they need in order to improve their performance or to allow the performance. He stated these funds will be used to develop competencies. He stated that because of the funding of the Phase II they received a few years ago, Applied Diamond has been able to forge ahead.

Mr. Tabeling stated that diamond is a very special material but it also conducts heat faster than any other substance and has an extremely low contraction rate due to temperatures. He stated that they intend to make monochromators of diamond for use in the new

generation of synchrotrons. He stated these diamond monochromators will reduce the operating expense and increase the capacity of DOE's high power laboratories, accelerating advances in the materials and biological sciences. Mr. Tabelaing stated that basically the purpose of this SBIR is to take small crystals and mount them on less perfect diamond materials and to make a less expensive tool.

Mr. Gilligan asked about the \$200,000 spent on lab equipment. Mr. Tabelaing stated that was for a total upgrade of the facility.

Mr. Tabelaing stated that Applied Diamond is self funded. They do have a good relationship with a banker, have weathered bad times but are also expecting a twenty-five percent increase this year. He stated their line of credit is down to approximately \$70,000. He stated they are continuing to invest in the business.

Mr. Lubin asked if the assembly took place at the business site; Mr. Tabelaing stated it did.

Mr. Lubin asked if there were any public comments; there were none.

After duly considering, inter alia, the nature of the business, that the Applicant is a "small business" within the meaning of 29 Del. C. §5035 (b)(3), that the Applicant has won a Phase I award in the Federal SBIR Program, that the Applicant has submitted a proposal for a Phase II SBIR award but has not yet received such award, that the Applicant's principal place of business will be located in the State of Delaware; and that the research to be conducted will benefit the Delaware economy, and other requirements under applicable statutory and regulatory provisions, Mr. Sears made a motion that the Council recommend to Director Alan Levin, Chairperson of The Delaware Economic Development Authority, approval of a grant in an amount not to exceed Fifty Thousand Dollars (\$50,000) to be disbursed from the Delaware Technical Innovation Program ("DTIP"), to be used for the Project, contingent upon the approval remaining in effect through and including July 25, 2011. Mr. Gilligan seconded the motion, which was then adopted by unanimous vote.

**Elcriton, Inc.** ("Elcriton" or the "Applicant") – The Applicant is requesting a grant in the amount of \$50,000 from the Delaware Strategic Fund under the Delaware Technical Innovation Program to provide funding between its Department of Energy Phase I and Phase II Grant Application, entitled, "Development of Homologous Recombination and Recombineering Technologies for Clostridia—Biotechnologies" (the "Project"). This Applicant is located at 15 Innovation Way Room 288, Newark, Delaware 19711.

Ms. Cannon presented this request to the Council. Ms. Cannon stated that Elcriton is a very strong company.

Dr. Tracy stated that the whole motivation is to develop platform bacteria strains (specifically of clostridia) that are suitable for industrial scale fuel-alcohol production from sustainable and environmentally friendly feedstocks (bio-based fuels).

Dr. Tracy stated that their development of clostridia is the second largest fermentation that has been produced in order to enable industrial scale production of alcohol based biofuel. The other one is ethanol which is used for the production of acetone. It is cheaper to produce butanol. He stated that during the past six months, Elcriton has been working with butanol. He stated there is a very large market for butanol.

Dr. Tracy stated that they are working with the Enterprise Management Corporation from the Fox School of Business at Temple. He stated they have applied for a Phase II but have not received a confirmation. However, he is confident of their ability to obtain Phase II approval.

Currently Elcriton has two full time employees, two part time and hopes to hire another two employees. Dr. Tracy stated that most of Elcriton's services are Delaware based (such as legal and accounting).

Dr. Tracy stated they will be talking to investors in the future. He stated Elcriton will probably be moving out of the Delaware Biotech Institute in the future as they have outgrown their space and will move to Innovation Way.

Mr. Sears stated that fuel-alcohol production is a hot topic and asked about Elcriton's competition. Dr. Tracy stated that butanol is very popular, and there is competition. However, others produce butane using a thermal/chemical approach and their process is genetic. He believes that their process is superior and more cost efficient. He stated that Professor Papoutsakis has essentially trained all the scientists that know this process. He stated Elcriton knows the state of research capabilities and that is why they are targeting butanol. As a result, they believe that they have a foothold in the market. He stated the other companies have been mildly successful, but Elcriton has demonstrated more. He stated Elcriton partners up with these other companies because they lack the capital investment.

Mr. Lubin asked if there were any public comments; there were none.

After duly considering, inter alia, the nature of the business, that the Applicant is a "small business" within the meaning of 29 Del. C. §5035 (b)(3), that the Applicant has won a Phase I award in the Federal SBIR Program, that the Applicant has submitted a proposal for a Phase II SBIR award but has not yet received such award, that the Applicant's principal place of business will be located in the State of Delaware; and that the research to be conducted will benefit the Delaware economy, and other requirements under applicable statutory and regulatory provisions, Mr. Gilligan made a motion that the Council recommend to Director Alan Levin, Chairperson of The Delaware Economic

Development Authority, approval of a grant in an amount not to exceed Fifty Thousand Dollars (\$50,000) to be disbursed from the Delaware Technical Innovation Program (“DTIP”), to be used for the Project, contingent upon the approval remaining in effect through and including July 25, 2011. Mr. Sears seconded the motion, which was then adopted by unanimous vote.

**Compact Membrane Systems, Inc. (“Compact Membrane” or the “Applicant”)** –

The Applicant is requesting a grant in the amount of \$50,000 from the Delaware Strategic Fund under the Delaware Technical Innovation Program to provide funding between its Department of Energy Phase I and Phase II Grant Application, entitled, “Novel Membranes for Enhancing Value in Bio-Oil” (the “Project”). This Applicant is located at 335 Water Street in Newport, Delaware 19804-2410.

Ms. Onorato presented this request to the Council. She stated that Compact has been before the Council before. They have been awarded eight SBIR awards but for the past ten years; this would be their second.

Mr. Dinetta stated that Compact Membrane’s concept is a little different twist from creating biofuels. Compact Membrane will be developing the application of separating undesirable compounds from bio-oil by a membrane separation process. The undesirable compounds in bio-oil are water, aldehydes and carboxylic acids. He stated Compact Membrane will be improving the quality of bio-oil – liquid fuel made from low quality wood and woodchips. He stated there are two major issues in using those products – low time period of storage and low hearing value.

Mr. Lubin asked if there were any public comments; there were none.

After duly considering, inter alia, the nature of the business, that the Applicant is a “small business” within the meaning of 29 Del. C. §5035 (b)(3), that the Applicant has won a Phase I award in the Federal SBIR Program, that the Applicant has submitted a proposal for a Phase II SBIR award but has not yet received such award, that the Applicant’s principal place of business will be located in the State of Delaware; and that the research to be conducted will benefit the Delaware economy, and other requirements under applicable statutory and regulatory provisions, Mrs. Vible made a motion that the Council recommend to Director Alan Levin, Chairperson of The Delaware Economic Development Authority, approval of a grant in an amount not to exceed Fifty Thousand Dollars (\$50,000) to be disbursed from the Delaware Technical Innovation Program (“DTIP”), to be used for the Project, contingent upon the approval remaining in effect through and including July 25, 2011. Mr. Gilligan seconded the motion, which was then adopted by unanimous vote.

**The Delaware Economic Development Authority (“DEDA”) – Financial Statements**

- Ms. Onorato has prepared financial statements for DEDA. She stated that the State of Delaware’s Auditor’s Office first prepared financial statements in 2007. She had hoped

to share the draft statements with the Council today but recently discovered some information that she would like to re-review.

Mr. Smith stated that the financial statements in final form will be put on the State's web site. Ms. Johnson stated that it is her understanding that the financial statements are due as of June 30<sup>th</sup> with a reasonable time to be presented.

Director Levin suggested that the review of the statements be deferred until next month's CDF meeting.

It was also requested that the Council receive a summary of notes receivables, appropriated but undisbursed funds, late loan payments, loans with interest only payments and any upcoming balloon payments.

**ADJOURNMENT**

The meeting adjourned at 10:25 a.m.

Respectfully submitted,

Lee Porter, Secretary

*LKP*

cc: Members of the Council on Development Finance  
Director Alan Levin  
Ann Marie Johnson, Deputy Attorney General

The next CDF meeting is scheduled for Monday, August 23, 2010, at 9:00 A.M. at Buena Vista in New Castle, Delaware.