

TECHकी बात

SIIC IITK going global -
Singapore rolls out the red carpet





STARTUP
INCUBATION AND
INNOVATION
CENTRE
IIT KANPUR



MENTOR'S DESK

Why Startups require a mentor

There is something valuable I observed while interacting with a number of start-ups and growing businesses in India and overseas. Most of them were focused on the technology part of startup but very weak on business aspects.

A startup, like a vehicle, needs minimum two wheels – product and go-to-market. None had a business plan for go-to-market.

It is normally rare to have expertise in everything. Innovators many times focus on product but ignore business planning and go-to-market as it is outside their comfort zone. It is alright not to know everything, but focussing on business planning and go-to-market is important. One way to do this is to take help from a mentor.

Business needs many things including deep analysis of the market. A mentor is the right person for this. Below is the list to help in the initial stages of start-up.

Strategy

- Vision statement
- Mission statement
- Definition of market, product, customer, positioning or proposition, competition etc.
- SWOT - Strength Weakness Opportunity Threat analysis
- Piloting and designing the plan for validation of the product and scaling, if needed
- Risk mitigation – eg. legal agreements, terms of use agreement, market risks etc.

Business plan

- Revenue, costs, and margin projections for 2-3 years
- Short term cash flow plan for first one year and more
- Technological road map of the product for 2-3 years
- Customer experience and user interface imperatives
- Structural planning, key roles and responsibilities and key performance in metrics at the basic method level.
- IT infrastructural plan
- Manpower or HR road map for 2-3 years
- Market campaigns and communication strategy
- Sales plan for 1 year
- Marketing and communication plan for 1 year
- Customer success plan for 1 year
- Facilities plan for 1 year
- Business review plan for 1 year

Long term plan

- Revenue, margins, investment, returns, and infrastructure plan for the next 3 to 7 years.

In addition, mentors provide guidance on leadership, management, planning, performance reviews, interview and hiring, financial management and many more.

A mentor is essential for deep analysis of the business strategy and taking it to the next level. Even if you know answers to all your questions, a mentor can help critically in improving the strategy. They also help in accelerating the learning and increasing the momentum of the market.



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Research survey - SCORE, a team of mentors work with great diligence to bring about success in business.

Investors look for strong business potential. Mentors can be a co-founder for a single business person and increase the market valuation. Mentors sometimes work for enjoyment and not for monetary gain. There must be transparency in every aspect of the business to flourish. Sometimes mentors expect compensation from the start-ups and are given equity to the extent of 1-2%. They must be on-board with the new business start-ups for improving networks, planning, advising and marketing.

Somesh Bhagat
Mentor,
SIC, IIT Kanpur



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Volume- 01 | Edition - 06 | June 2022



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SNAPSHOT JUNE 2022

Three new startups joined the incubation ecosystem at IIT Kanpur. The application reviews and knowledge webinars achieved some impressive statistics too. Head to the section to find out!



2

SUCCESS STORIES

The innovators at SIIC IIT Kanpur work tirelessly to strengthen the in-house incubation ecosystem. Our incubated startups have achieved newer benchmarks across multiple recognized platforms. Read on to know more!



3-4

INNOVATORS' KI BAAT

This section will introduce the readers to the innovative technologies currently under incubation at SIIC IIT Kanpur. Read on to know more about our transformative ecosystem.



5

INITIATIVES AT SIIC IIT KANPUR

In June, SIIC IIT Kanpur achieved the deployment of transformative technology under an initiative, which was supported by our kind industry stakeholders. Read on!



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PROGRAM HIGHLIGHTS

This section is about the major happenings for the month of June across the multiple program verticals currently active at SIIC IIT Kanpur. Refer to the section to know more about the recent highlights of the month.



7-8

SIIC'S BROADENING HORIZON

This section highlights the amplifying startup networking enterprise at SIIC IIT Kanpur. Read about the incubator's elaborate outreach with international stakeholders in June.



9

FROM THE IPR AND TECH-TRANSFER CELL

The IPR and Tech Transfer Cell at SIIC IIT Kanpur is a facilitating unit of various novel technology licensing. This section covers the major events in the academic and incubation ecosystem. Read now!



10

FUNTECH

Work up your mind with an interesting, Investment-themed cross-word at the end!



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SNAPSHOT JUNE 2022



With pathbreaking innovations brewing at SIIC's startups, the incubator aims to create impact at the bottom of the pyramid. SIIC has developed the experience that has become the main ingredient in nurturing the early-stage, technology-focused startups in the domains such as agriculture, healthcare, aerospace, and medical devices.

57
Applications
Received

03
Startups incubated
at SIIC

229+
Attendees reached
through events

NEW INCUBATED STARTUPS



Joey Envirotech Pvt. Ltd

Joey Envirotech Private Limited
Founder - Mr. Shreyansh Tatiya

The company is working on a board game called 'Karma' which intends to entertain the player and convey the value of karma in one's life. The game is based on the four stages of life: Balyavastha, Kishoravastha, Yuvavastha, and Vradhavastha with the key events linked with each stage.



Params Data Provider Private Limited
Founder - Mr. Subir Singh

The company has created decentralized finance (Defi) Risk Management Protocol, which uses an asset-backed synthetic protocol to allow for low-cost information, settlement, and trading of decentralized tokenized assets to decrease portfolio risk.



RF Nanocomposites Private Limited
Founder: Dr. Vishal Kumar

The company builds microwave absorbers for defence stealth technologies and EMI shielding layers/coatings for various applications including defence, space, electric vehicles, medical, and consumer electronics. The team also develops full/semi-anechoic and EMC chambers for special purposes.



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SUCCESS STORIES

SIIC is currently supporting 100+ incubated startups across programs and initiatives within the incubator. Since its inception, SIIC's incubated companies that have reached a combined valuation of more than USD 1 Billion. This section highlights some of these success stories of start-ups, disrupting the entrepreneurial ecosystem in India with their pathbreaking innovation.



(left to right) Sowjanya T, Kuloth Vijay, Vengat K, Manikandan Dhakshnamoorthy: team napID Cybersec, being facilitated at the Hackathon HaRBinger 2021 award ceremony.



napID Cybersec has won the RBI Hackathon HaRBinger 2021

napID Cybersec, incubated at SIIC IIT Kanpur, has won the Reserve Bank of India Hackathon, HaRBinger 2021, for their flagship product ONE-TOUCH Authenticator under the problem statement of Alternate Authentication Mechanism for Digital Payments. Hackathon's theme was 'Smarter Digital Payments' with four stated problem statements.

napID's One-Touch authenticator helps banks and enterprises to authenticate genuine users and prevent fraudulent login and payments by enabling the login form, payment form, ATM machine, and POS machine only for the genuine users using their patent granted napID's Fraud Filter System and Sleep mode Technology.



CD Space exhibited made-in-India UAV SPOT V3 at the Drone Festival of India

CD Space, a SIIC incubated start-up, showcased their made-in-India UAV SPOT V3 at the Drone Festival of India organized by the Drone Federation of India, Government of India. The Drone Federation of India (DFI) is a non-government, non-profitable, industry-led body that works towards building a safer and scalable drone industry in India. CD Space's unique SPOT V3 received good traction at the event. Co-founder Nikhil Upadhaya said "It was an exciting opportunity to learn more about the disrupting drone ecosystem in the country".



AiRTH Research has won the award for 'Best Green Innovation' of the year at the World Environment Expo

AiRTH Research was awarded the 'Best Green Innovation' at the World Environment Expo 2022 organized at Pragati Maidan, New Delhi, on 4th-6th June. The World Environment Expo (WEE 2022) is a b2b business platform for the national and international environment technology and equipment manufacturers looking for new business opportunities worldwide. AiRTH Research has successfully developed an Anti-Microbial Air Purifier that deactivates the viruses in real-time and tackles the deteriorating air quality with the first-of-its-kind technology.



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INNOVATORS' KI BAAT



Akshay Srivastava, a Chemical Engineer from Madan Mohan Malaviya College (2021), is working on the production of Bio fertilizer named LCB (Ligno Cellulosic Biomass), with only the bio-degradable products for a better production of crops. LCB Fertilizers is an Agritech Startup which is DPIIT and UP Govt. recognized and incubated in one of the best incubation centres SIIC, IIT Kanpur. LCB Fertilizers works with the advanced technology of Biotechnology, Nanotechnology and Chemical Engineering, making the product unique.

Akshay Srivastava, coming from a middle-class agricultural background, knows the hardships when the crops are destroyed by heavy rain, wind or insects. There's a huge crisis in the family regarding availability of food, unintended discontinuity of education and financial loss. The journey starts from this crisis. His main concern was to produce bio-degradable fertilizers which may be beneficial to him as well as to others and will be a support system to the financial crisis of the family. We conducted an interview with him and collected some details about his business.

On asking him about the different kinds of markets, he mentioned about the two main categories – chemical fertilizer and organic fertilizer. The first one comprises of the use of urea, pesticides and insecticides, which helps to the growth of the crops but does not make it strong internally. The second one is the bio fertilizer which has a great impact on social and environmental ecosystem. This fertilizer has to be used only once in crops like paddy, wheat and maize and thrice in case of sugarcane, with a nominal production cost. No air polluting chemical is spread. According to him, the LCB Fertilizers is environment friendly as there is no use of chemicals. The fertilizer helps in increasing the soil's water retention capacity and elevates the nutrient level. This market also boosts up the social factor. Both the skilled and unskilled labours are involved in farming in one way or the other, giving employment to many people.





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INNOVATORS' KI BAAT



The goal and purpose of LCB Fertilizers:- The goal is to promote organic farming. Once the fertilizer is given, nothing else is needed. This has a good impact in the market with 40% reduction in water, minimum manpower and good growth of the crops. They work with the motto 'from the farmers, by the farmers, for the farmers'. He has clearly explained the motto in his interview.... "the waste that remains after reaping is taken from the farmers. The farming and necessary things regarding production are taken care of by the farmers. The production is for the help of the farmers". The three branches of science have a great influence on this production - Biotechnology helps towards keeping the micro-organisms alive for two years. Nanotechnology helps towards increasing the maximum surface area with a minimum volume. Chemical Engineering helps towards making three hundred times super absorbent polymers from Parally and Lignin. This is what makes the LCB Fertilizers unique. He has an aim to promote Aatmanirbhar Bharat by opening one store in each district of Uttar Pradesh and Bihar. 70% work is done, the rest depends on hard work. LCB Fertilizers is reaching out fast to the farmers and has an objective to connect 10,000 farmers by 2022.

When asked about the ambiguities of the market on which he is working, he clearly holds chemical fertilizers responsible for the ill growth of the crops. These fertilizers increase the plant's growth externally but the roots are not well developed to face any kind of natural calamity. Thus, the plants are uprooted or dry up leaving the farmers at a huge loss. Touched by the ill fate of the farmers, he thought of something innovative. For him, the key lesson was "If you have the capacity and good intention, there will be some way out, although some kind of research is needed". He mentions the contribution of SIIC to be enormous and unconditional. SIIC has been like a parent to an orphan. He has got funds and grants from Research and Development wing. He got prestige and value from people when mentioning about the help from SIIC IIT Kanpur incubator. With this help he was able to setup two plants, Kushinagar (150 tonne) and Kolhapur (40 tonne), to fulfill the demand across India.

The interview highlighted SIIC's contribution to this transformative startup. If LCB Fertilizers succeeds, it will be beneficial to many farmers. The farmers will overcome the financial crisis. We, the common people, will get healthy, insecticide-free food. This interview aims to promote awareness among the masses about their promising product. It was heart-rending and inspiring to interact with the innovator.





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INITIATIVES AT SIIC

SIIC IIT Kanpur's initiatives are focused on strengthening the country's entrepreneurial ecosystem catering to some of the critical technological and infrastructural gaps at a pan-India level.



AiRTH Research's aeroSure Anti Microbial Air Purifier

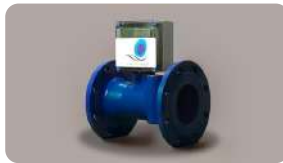
Civic Tech Innovation Launchpad, supported by **NTT DATA**, is the first of its kind of initiative which invites eligible startups and innovators to solve the civic issues of various districts across the country.

SIIC IIT Kanpur's recent collaboration with **Sadar Mandi District** has selected two innovative solutions for implementation in Mandi District. The previous collaboration with the **North Delhi Municipal Corporation (NDMC)** under the initiative has supported three innovative solutions for deployment in the North Delhi District.

S.No	Initiative	List of Winners
1.	Civic Tech Innovation Launchpad - Sadar Mandi	<ul style="list-style-type: none"> • AiTestified Private Limited. • Polycycling Solutions Pvt Ltd.
2.	Civic Tech Innovation Launchpad - NDMC	<ul style="list-style-type: none"> • Airth Research Pvt Ltd. • Kritsnam Technologies Pvt Ltd. • Polycycling Solutions Pvt Ltd.



aeroSure Anti Microbial Air Purifier
by AiRTH Research



Dhaara Smart Ultrasonic Flow Meter
by Kritsnam Technologies



Novo Build by
Polycycling Solutions



**STARTUP
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PROGRAM HIGHLIGHTS

In the quest to lead India into a technology-driven economy, SIIC works with critical stakeholders to execute programs aimed to transform the entrepreneurial landscape in India.

IIT Kanpur, alongside IIT Delhi and Bombay, visited Ladakh to discuss the development of local entrepreneurial ecosystem



Industries and Commerce Department, Ladakh organized a workshop – ‘Enterprising Ladakh’ for Ladakh’s budding entrepreneurs in diverse domains like food processing, handicrafts, handlooms, textiles, Pashmina, emerging technologies and business areas. Over 40 active entrepreneurs attended the workshop to understand the sustainable utilization of resources in Ladakh to achieve successful entrepreneurial ventures and add to employment generation in the geography. Prof. Amitabha Bandyopadhyay - Professor-in-charge - Innovation and Incubation, IIT Kanpur and Ankit Saxena, Assistant Vice President - Projects, attended the workshop alongside teams from IIT Delhi and IIT Bombay. The visiting members and Commissioner Secretary, Industries and Commerce Department discussed the potential list of institutions and resources that can be channelled for use to the local entrepreneurs.

Startup Innovation and Incubation Centre IIT Kanpur has initiated the program 'Biotechnology Industrial Training Program'

The Biotechnology Industrial Training Program has been initiated at SIIC to provide hands-on training to the students in tools and techniques in Biotechnology and exposure to work in the start-up ecosystem.

India's biotechnology industry is built on entrepreneurship, innovation, developing domestic talent and demonstrating value-based healthcare. Students and start-ups both benefit from this initiative as students gain first-hand experience of start-up work culture and required skills, while start-ups get a chance to evaluate potential candidates. The first cohort under the program which started on 16th May'22 is currently active and observed student participation from institutions throughout the country. The students went through rigorous practical training at the lab facility along with interactive lectures from the eminent faculties of BSBE department of the IIT Kanpur. They are currently under training with our incubated startups like Kinoko Biotech, Duosis Bio innovations, Mendearth, and AiRTH.





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SIIC'S

BROADENING HORIZON

SIIC IIT Kanpur's Delegation to Singapore



"An energetic beginning" for the Indian Start-up's ecosystem by SIIC IIT Kanpur for the first time in history, IIT incubated startups delegation meet with Singapore investors.

A start-up delegation led by Dr Nikhil Agarwal, CEO, FIRST IIT Kanpur and AIIDE - CoE, with prominent SIIC IIT Kanpur's incubated start-up delegation visited Singapore from 16th to 20th May 2022 to foster the Indian start-up ecosystem by creating bilateral ties with Singapore's business community. The delegation met with various sets of international industrialists and Venture Capitalists, including IIT Alumni Singapore, Meet Ventures, World toilet organization, SICCI, Kochar & Company, BG Consultancy, NTUitive Incubator and Singapore Management University, during this visit.

The delegation identified cross-border growth and various investment opportunities in Singapore. The delegates met the High commissioner of India, Singapore Shri. P. Kumaran and eminent industry leaders, VCs, and various investment forums such as Cropstage, Singapore Fintech Association, and Hawksford Singapore. The delegation from India and Singapore officials discussed how the startup ecosystem based in Singapore and India can collaborate to work more efficiently to achieve and capitalize on market opportunities, new business formalization, potential partnerships, funding options, development of ideas and business models.

The Startup's delegation received motivating feedback and valuable insights from the investors. The meeting with the IIT Alumni Association based in Singapore, was hosted by the president, Mr Avish Joseph, and his team. The scope and prospects for enhancing technical innovation between both the countries were discussed in detail with the visiting delegation and the core team.

The delegates learned about the opportunities for Indian startups in business and investment through profound tech innovation. The meeting also addressed the future prospects, wherein both the countries are expected to demonstrate joint determination to "build back better", in the innovation ecosystem in various domains.

The participants also learned about the new ways for Indian enterprises to develop prospective partnerships and finance alternatives in Singapore, as it is an attractive destination for tech startups. Prof. Archan Misra, Vice-Provost, SMU, also added that a robust R&D and innovation ecosystem can generate revenue and boost growth for the incorporated firms. Appropriate utilization of the deep tech resources and R&D infrastructure will promote the conception of more businesses, pushing them to new heights.

The various opportunities in the ASEAN fintech industry identified during the conversation with Mr. Reuben Lim, CEO of SFA, stated that the fintech industry is the primary funding sector and magnet for fintech startups. He emphasized that more Indian start-ups should pursue the business to access the investment opportunities in the fintech sector.

Dr. Agarwal said that "Singapore is one of the premier locations for budding entrepreneurs seeking to formalize new businesses with low taxes, solid infrastructure and strong government backing. Entrepreneurs can leverage a wide range of financial ways to accomplish their business's development goals in Singapore and the MENA region". SIIC IIT Kanpur startups successfully gained access to networking opportunities with multiple stakeholders. They have been able to attract and explore different avenues of funding and B2B connections in the global market through this delegation, he added.



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SIIC'S

BROADENING HORIZON



This visit provided tremendous exposure to our start-ups. Also, it offered an excellent opportunity to connect with investors as Singapore has a robust economy and steadily increasing bilateral trades with huge sustainability. The country has become a launchpad, not only for their own indigenous start-ups but for the entire South-East Asian startups. In India, we have the world's largest start-up ecosystem working on some of the most innovative products and solutions. In this age of globalization, India recognizes its part and is ready. We aim through this endeavour, SIIC IIT Kanpur will take the lead in creating a diverse set of partnerships with various organizations in Singapore.

DR. NIKHIL AGARWAL

CEO, FIRST IIT Kanpur and AIIDE - CoE



MR. RAHUL PATEL

VP - Strategic Initiative



The aim of this visit was to provide a platform for our budding startup to expand business globally and create new pathways in the new markets. Singapore has a proven track record of supporting advanced technologies in various domains and acting as a bridge to a growing South East Asian market. Now India is on the same path to provide huge contributions in R&D, driven by ample government support and partnerships within the private sector.

IIT Kanpur's licensed technology 'Bhu-Parikshak' has been developed in a smart soil testing device

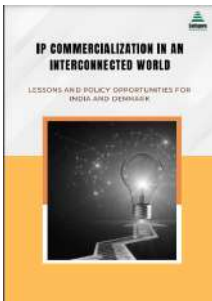


The soil testing device has been termed a game-changer in the market- with an ability to provide real-time information about the soil's health in 90 seconds. A live demonstration of the soil testing device was also conducted during the event using only 5 grams of dry soil sample. After the soil health report was generated, it was accessible on *Bhu Parikshak* mobile application with a unique ID.

IIT Kanpur's licensed technology, *Bhu- Parikshak*, has been launched as a product recently to bring a revolutionary change in the Indian Agriculture ecosystem. The technology has been licensed to AgroNxt Services - an agritech company. The product launch event was organized at IIT Kanpur's outreach centre in Noida.



IPR Cell at SIIC IIT Kanpur participated in an initiative to enhance the technology transfer and spin-out success in India and Denmark



IPR Cell, SIIC IIT Kanpur participated in the international conference jointly organized by the Department for Promotion of Industry and International Trade (DPIIT), Government of India and Denmark Patent Office in New Delhi.



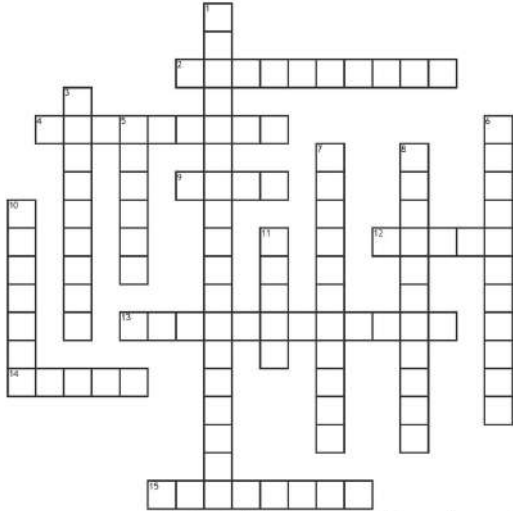
The conference, titled 'Commercialization of Innovation and Intellectual Property', explored the challenges and opportunities for advancing IP commercialization in India and Denmark. The report 'IP Commercialization in an interconnected world – Lessons and Policy Opportunities on IP commercialization in India & Denmark' was also launched during the conference. IIT Kanpur has contributed to the report's development as an IP expert and a knowledge partner.



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FUNTECH THEME - Investment

For the below crossword, answers will be given in the next edition of the newsletter.



May 2022 CROSSWORD Answers

ACROSS
3. Smart Phone 4. PIN 7. Lock 8. Responsibility 10. Virus 11. Sensitive
12. Password 13. Contact

DOWN
1. HTTPS 2. Social Engineering 5. Software 6. PII 9. Symbols

ACROSS

- 2. Putting money towards something and expecting a profit over a period of time. (10)
- 4. A sum of money paid regularly by a company to its shareholders out of its profit. (9)
- 9. A situation involving exposure to danger. (8)
- 12. The amount of money an item costs. (5)
- 13. An increase in monetary value. (12)
- 14. A part of a larger amount that is divided among a number of people. (5)
- 15. Articles that are manufactured for sale. (8)

DOWN

- 1. A group of investments an individual has put money into, hoping for a positive return over time. (18)
- 3. The availability of liquid assets to a market. (9)
- 5. To expend money with the expectation of achieving a profits. (6)
- 6. An owner of shares in a company. (11)
- 7. Where shares are sold, issued, and bought. (11)
- 8. Any person, company, or other institution that owns at least one piece of a company (11)
- 10. Financial gains. (7)
- 11. The capital raised by a business through the issue of shares. (5)

QUICK FACTS

Type of Investors

Source : alcorfund

1 Banks & Financial Institutions	6 Venture capitalists	11 Personal Financing
2 Personal Investors	7 Private Equity Investors	12 Purchase Order Financing
3 Peer-to-Peer lenders	8 Incubators & Accelerators	13 Pre-Sales Financing
4 Seed Investors	9 Crowdfunding Platforms	14 Startup Contests
5 Angel Investors	10 Government Programs	15 Entrepreneur fellowships





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ECO-SYSTEM ENABLERS

CSR



FUNDING & MONITORING



INTERNATIONAL



TORONTO BUSINESS
DEVELOPMENT CENTRE

KNOWLEDGE



INDUSTRY



SERVICE



AI ENABLEMENT



CLINICAL





CELEBRATING
100
INCUBATEES
SIIC·IIT KANPUR

Intignus Biotech Pvt. Ltd.

Azocedo

UNNADA

Airth

medGrids

DISECTO

SleepLabs

bhs.

MINDBRICS

NEOPERK

MAAY LEKI GROUP

NUOVATEK BIOSOLUTIONS

Urinalytics

CDSPACE





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