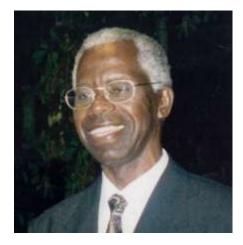
Welcome to St. Stanislaus College Awarded in Memory of a distinguished Alumnus Dr. Frederick Ignatius Campayne, 1939 – 2012

Dr. Frederick Campayne, known to all as Freddie, was born in Georgetown, British Guyana on Wednesday, October 4, 1939, being the second son of James and Ora Campayne.

Frederick went unexpectedly to the Lord on Monday, October 8, 2012 in Trinidad.

Below is my personal tribute to Freddie whom I consider to be the most gifted of scientists coming out of Guyana; someone I feel honoured to have competed with at the undergraduate level.



Frederick Ignatius Campayne, 1939 – 2012

A tale of two (or a few) Saints Alumni By John Sparrock

1951-1958: St.Stanislaus College

In 1951, Freddie entered St. Stanislaus College Form 2A on a Government Scholarship while I was languishing comfortably in Form 3A where Gary Blank and Cosmas Searwar were blazing a hot academic trail. Sometime between '53 and '55, word got around of a fierce academic rivalry between Freddie and Leyland Grant who were battling neck and neck for the top academic spot in their class.

Freddie's performance in the Quiz Kids quickly earned him the title of "Black Diamond", and in the 1953 Saints Magazine, Freddie wrote a piece entitled "A Year with the Quiz Kids" where he said: "*It is a year in which I was made to be more conscious of what was happening in the world, and to be more interested in what I read*".

What was happening in our corner of the world was that Saints was competing with QC for Guiana Scholarships. In 1955, Jerome DeFreitas won, with Carlyle Moore and Kenneth Khan tied as runners-up. All three did A-level Latin, Pure Maths, Applied Maths, with "JC" DeFreitas securing a distinction in Applied Maths and Carlyle and Ken in Pure Maths. Prior to that, Vibert Lampkin, while on the teaching staff, came close to

winning the 1952 Guiana Scholarship securing top marks in Latin, and was only 1 mark behind the winner in Pure Maths.

Clearly, the teaching staff at Saints was aware of another pair of Guiana scholars in Freddie and Leyland. Meanwhile, I was beginning to find my feet in football (soccer).

When I started 6th Form in 1955, Saints began offering A-Level Physics. Included in this pioneering group were Michael Camacho, John Choy, Steve DeCastro, Leonard Khan, Cosmas Searwar and myself. An English ex-pat (Mr. Bowron?) joined the staff to handle the 6th form Physics, but left abruptly thus forcing Fr. Feeny to take over. To his credit, Fr. Feeney was able to keep one step ahead of the class, and I remember a number of occasions when he asked me to go to the board to work out Physics problems. Between Fr. Feeney (Physics) and Fr. Lynch (Pure Maths and Applied Maths) I finally found my stride.

At the end of my 1st year in 6th Form, I sat A-Levels Maths and secured a distinction in Pure Maths. One year later (1957), Freddie did likewise and secured distinctions in both Pure and Applied Maths.

Freddie's record-breaking run is best summed up in the 1959 Saints Magazine under - **Highlights of 1958**:

Academically the chief high lights were the winning of the U.C.W.I. Federation Open Scholarship by F. I. Campayne, to be followed by a Guiana Scholarship. This Guiana Scholarship is the third in four years. In 1957, J. Sparrock had three distinctions with an average of 87%. In 1958 F. I. Campayne beat that record by 1/3%. We congratulate Frederick Campayne on his honours, his proved ability, and exemplary industry; and the college staff on the excellence of their teaching.

1958-1961: Dept. of Physics, UCWI, Mona, J'ca

History changed on October 4, 1957, when the Soviet Union successfully launched Sputnik I (on the very day that Freddie was celebrating his 18th birthday). The surprise success precipitated the American Sputnik crisis, began the Space Age and triggered the Space Race, a part of the larger Cold War. The launch ushered in new technological and scientific developments.

In Jamaica, the head of the Physics Dept., perhaps inspired by world events, decided to launch a BSc Special Honors program in Physics, beginning in academic year 1958. The attraction of this program is that if one secures a good degree, one can go straight into a PhD program, bypassing the Master's degree.

I wrote off my 1st year at UCWI and signed up for this program along with Jamaica Scholar, Vernon Wong, who actually switched from Medicine to Physics – a clear indication that in the 50's and 60's Physics was hot. Freddie came into the program directly from Saints and this pioneering class consisted of 6 students, including Teddy Beckles (T'dad), Harry Ragbir (T'dad) and Algy Wharton (QC, Guiana).

By coincidence, Freddie, Vernon and I were in Block B, Taylor Hall (along with John Choy – another Saints grad - who had won the Jesuit Centenary Scholarship and had come up to UCWI with me in 1957). One may think of it as the 3 gladiators in the ring, with John Choy as the referee.

It didn't take long to identify the differences. Vernon was into sports, both football and cricket, and being Jamaican had an active social life. He also had a fantastic ability to concentrate, and was able to handle tests with what seemed like minimal effort. Freddie and I held similar views on studying based on: "What you get out is driven by what you put in", and it wasn't hard to determine who was putting in the most.

Taylor Hall had a healthy contingent of Saints students, including Ron Camacho (Chief), Pat Derrell, Michael Heydon, Bunty Phillips and Terry DaSilva. We all sat together for dinner, with Terry generally steering the conversation towards intellectual topics. Freddie had signed up to serve dinner, no doubt taking advantage of the fact that servers get the best choice of dinners, but also knowing that he would be keeping his Saints colleagues happy and well fed.

Part of our Social lives centered around the Catholic Club in which Hazel Campayne played a prominent part. I remember one Christmas holiday when we went to a Catholic facility in Annotto Bay. Hazel was in charge of creating a choir to perform Christmas carols. It wasn't long before a panic alarm was raised. Hazel was desperate to find a male voice – I think it was a tenor. After some practicing, the word went out that the problem was solved. It was Freddie to the rescue. Hazel no doubt was in amazement at the power of prayer. My attempts at shouting louder didn't cut it, so I was left telling jokes to all the guys who were trying to get some sleep. Of course, well out of earshot of Hazel, since there was no need to trigger another prayer attack.

By about our final year, the Physics department launched an essay competition which Freddie won hands down with a paper on the Neutrino. To appreciate the significance of this, keep in mind that the neutrino was postulated first by Wolfgang Pauli in 1930 to explain how beta decay could conserve energy, momentum, and angular momentum (spin). However, it was not until July 20, 1956 that scientists

published confirmation that they had detected the neutrino, a result that was rewarded almost forty years later with the 1995 Nobel Prize.

As far as I can remember, none of the Physics textbooks that we were using in 1960 had covered the Neutrino, so Freddie must have gone to the library and researched this topic. Freddie was clearly into Physics, and in a big way.

It may well be that this essay led Freddie to Imperial College, London where Theoretical Physicist Abdus Salam, was working on the theory of the neutrino. Prof. Salam was a brilliant Pakistani theoretical physicist who won the 1979 Nobel Prize in Physics. During his career, he held many top positions around the world, but was always striving to establish a Theoretical Physics group in his beloved country, Pakistan. My instincts tell me that Freddie may well have been trying to emulate Prof. Salam when he chose to return to Guyana.

In 1961, when the results of our final exams were initially published, Freddie, Vernon and I secured 1st Class Honors, so I was happy to declare the race a draw. This however, was short-lived as the Saints magazines of 1961 and 1962 removed all doubt.



Frederick Campayne

Saints Magazine 1961 - News of Old Boys:

Frederick Campayne gained a 1st Class Honours Degree in Physics at the U.C.W.I. He is now at the Imperial College of Science and Technology, London, doing research on High Energy Nuclear Physics. He won the Physics Prize at the U.C.W.I.

Saints Magazine 1962 - News of Old Boys: **Frederick Campayne** shared the Joseph Luckhoo Memorial Prize for the best performance in finals at the U.W.I.

1961-1966: Imperial College of Science and Technology, London

In 1961, Freddie went to Imperial College on his Guiana Scholarship to work on High Energy Nuclear Physics, Vernon Wong went to Wadham College, Oxford on a Fulbright Scholarship to study Theoretical Physics (Plasma Physics) and I went to Kings College, Cambridge on a Guiana Scholarship to study BioPhysics. Our paths and interests had clearly diverged. To appreciate where Freddie's genius had taken him, I should mention that the High Energy Nuclear Physics team at Imperial College was perhaps the leading team in the UK working with many other teams in Europe and around the world to perform experiments using the <u>CERN particle accelerator</u>. CERN, the European Organization for Nuclear Research, is one of the world's largest centers for scientific research. Its business is fundamental physics, finding out what the Universe is made of and how it works. At CERN, the world's largest and most complex scientific instruments are used to study the basic constituents of matter — the fundamental particles. By studying what happens when these particles collide, physicists learn about the laws of Nature.

Founded in 1954, the CERN Laboratory sits astride the Franco–Swiss border near Geneva. It was one of Europe's first joint ventures and now has 20 Member States.

Also of interest, the <u>World Wide Web</u> was developed at CERN by Tim Berners-Lee in 1989 to facilitate the sharing of scientific information around the world. More recently, CERN was in the news when their Physicists confirmed the existence of the <u>Higgs boson</u>, or "God particle" on July 4, 2012.

Thus Freddie's post-graduate work was being done with teams consisting of the best and the brightest Physicists on the planet dealing with problems that were too complex for any single human being to tackle. It is safe to say that Freddie had outgrown the Caribbean. Freddie, the genius, was approaching the pinnacle of his career.

During these years, Freddie, Vernon and I did keep in touch, with occasional visits to London, Oxford or Cambridge, mostly for socializing. I remember going to a party in Oxford arranged by Vernon, and for the first time in my life noticed how the ladies would send signals to each other to identify the guys they were interested in. Freddie, however, was in no danger since his devotion to his studies and to his religion almost certainly harked back to his time at Saints when Fr. Scannell described the 3 tiers of human life, with the top being the Priesthood; the 2nd being a single life dedicated to doing good works; and the 3rd being the married life.

At no time however did his choice of a single life impact Freddie's cheerful disposition. He knew how to enjoy himself in a social setting, but was always in control.

Our post-graduate years were not without its challenges. The early days in the UK were not particularly pleasant. In addition to the feeling that the Brits would rather not have any foreigners on their soil, we were anxiously trying to find original topics on which to base our PhD theses. I will never forget the comment of one of my supervisors: "All the easy problems have already been solved". That certainly focused one's mind.

As early as 1963 – just two years into his post-graduate program - Freddie was publishing (joint) papers in Nuclear Physics. It was quite clear that Freddie was operating in a totally different world from normal human beings. No wonder we did not "talk shop" when we met during these years. For all intents and purposes, our academic race was over.

In 1966, Freddie - with about a dozen publications under his belt - received his PhD degree. This milestone was recorded in Saints Magazine 1967- **News of Old Boys**: *FREDERICK CAMPAYNE* has obtained his PhD. in Nuclear Physics. He won the Guyana

Scholarship in 1958. After graduating at the University of the West Indies, he went to London University (Imperial College) to study Nuclear Physics. He is now lecturing at the University of Guyana.

1967 - 1981: Dept. of Physics, University of Guyana

During our undergraduate years at UCWI, the head of the Physics Dept., Dr Francis Bowen (aka Bobo) continually reminded us that his wish was for us to return to UCWI and join the Physics Dept.. Indeed, Vernon recently disclosed to me that Bobo visited him in Oxford to interest him in returning. Unfortunately for Bobo, the University of Texas at Austin made him an offer he couldn't refuse.

With a growing family and a civil service salary, I felt unable to survive in London. As an aside, I was then working at the National Physical Laboratory, and one day Leyland Grant showed up from nowhere. He had taken a position in the Optics Laboratory working on Lasers, which I considered to be a lucky break for him.

During our post-graduate years, the situation in British Guiana had changed. Independence was achieved in 1966 and it was renamed Guyana. Even before that, Cheddi Jagan, then Premier of British Guiana, considered that the University College of the West Indies, to which his government had contributed since 1948, was not meeting the demand of his countrymen for higher education. Thus the <u>University of Guyana</u> opened on the grounds of Queen's College in late 1963.

Although we did not collaborate on our next career move, Freddie and I seemed to have hit upon the idea of returning "home". I had written off Guyana on hearing of its breakaway from UCWI (which also became autonomous from the University of London in 1962 to become UWI).

I accepted a position at UWI and departed London in January, 1967 to spend two years at the St. Augustine, T'dad campus before transferring to the Mona campus in 1969 where I stayed until 1976. Freddie accepted a position at UG, I believe later in 1967, and stayed there until 1981, during which time he served as Head of the Physics Dept. on and off for 6 years. Incredibly, he was not awarded a Professorship, even though in my opinion he easily qualified for that position.

And this brings me to a point that fills me with sadness. Both Freddie and I were attracted to Physics at the start of the Space Race when the US was importing scientists at a frantic rate. By the time we had secured our higher degrees, the <u>Space</u> <u>Race</u> was winding down, but we did not quite see it coming. It officially ended in 1975. We chose to "give back" early in our careers, and when we could in good conscience move on, the door to the US (or abroad) was almost shut.

I was fortunate to escape (initially to Canada), but in the end I believe Freddie found himself trapped - a Genius in a Bottle. In 1967, Guyana was presented with an Intellectual Diamond, and failed miserably to recognize it as such.

1981 – 2012: Dept. of Physics, UWI, St. Augustine, T'dad

In the early '80s, the political situation in Guyana triggered an exodus of talented Guyanese. Ken Khan, while Principal of Saints, abruptly departed for B'dos in 1980. Pat Derrell, deputy Headmaster at Saints also left for B'dos in 1980, Sister Hazel Campayne, Headmistress of Ursuline Convent left for Canada in 1980(?), and in 1981, Freddie accepted a position as Lecturer in Physics at the St. Augustine Campus, UWI, T'dad where he worked either full-time or part-time until his death.

The Freddie Campayne Welcome Award is presented with the hope that all New Saints Students will be inspired to give of their best to make their parents and their teachers proud and in so doing help Saints to re-establish its reputation as one of the best Secondary Schools in Guyana.

> John Sparrock St Stanislaus College (1950 – 1957)