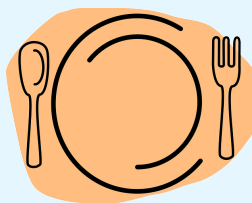




**THE WOMEN OF
STARFLEET MEDICAL**



**MACRONUTRIENTS
AND YOU!**



**WHO ARE YOUR
DOCTORS?**

THE H^YPOSPRAY



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The Hypospray is produced for STARFLEET International members by
the STARFLEET Medical Auxiliary Programme.

From the Editor's Desk

It has been a year since the start of the Coronavirus pandemic. We have been through so much heartache and stress. I hope that the social (be it virtual) aspect of being a member of STARFLEET Medical has given you all a bit of a break. So for this edition, we are keeping it STARFLEET.

LLAP,

Jessica Odell
Editor In Chief



Welcome to The Hypospray

Welcome to the 4th edition of the Hypospray.

This edition we turn our attention to the medical staff who serve our communities in the real world and who are also members of SFI.

We have a wide and varied membership who practice or perform medical functions within our community. From Pharmacists, Physiotherapists, Mental Health Nurses, Nurses, Dentists, EMT's and Doctors to name a few, all of which just as in the Star Trek world we rely on during our times of need.

Over the coming editions we hope to focus on as many of our members with those dual real life and trek roles and start off with our very own SFI Doctors and to celebrate international woman's day we have a very good piece on women in Starfleet Medical.

Thank you to all our Medical professionals for your continuing service.

Enjoy the edition

Captain Mark Logan PhD, SFMD
Surgeon General

From The Office of The Surgeon General



Mark Logan, SG



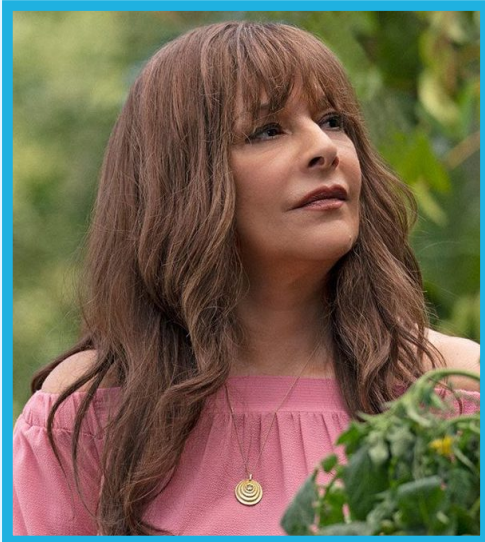
Pippa Slack, DSG

Let's make 2021 a stellar
year for STARFLEET
Medical!

LLAP,
Jessica Odell
Editor in Chief

The Women of Starfleet Medical

Deanna Troi- Starfleet Counselor:



Deanna Troi was a female Betazoid-Human Starfleet Officer Under the command of Captain Jean-Luc Picard she served as the counselor aboard the USS Enterprise-D and the USS Enterprise-E. In 2379 Troi transferred to the USS Titan.

As a half-Betazoid, Troi was capable of extra-sensory empathy, but was incapable of reading aliens with brain structures dissimilar to Humans and other Betazoids, such as the Breen and the Ferengi.

Early life and career

Deanna was born on March 29, 2336, near Lake El'nar on Betazed. She was born to Betazoid Ambassador Lwaxana Troi and Human Starfleet officer Ian Andrew Troi. Deanna was actually the second of their two children, the first being Kestra Troi, born in 2330. However, Kestra drowned when Deanna was an infant. Stricken with grief and regret. Lwaxana removed all evidence of Kestra's existence from her own life and even repressed all memories of Kestra. She also made her husband swear never to mention Kestra again. Because of this, Deanna did not learn of her sister until 2370, when Lwaxana's memories resurfaced.

As required by Betazoid custom, Deanna was genetically bonded with a Human male named Wyatt Miller at a young age. Wyatt was the son of Steven and Victoria Miller, close friends of Deanna's parents. Due to their genetic bonding, Deanna was scheduled to marry Wyatt in adulthood.

According to her mother, Deanna had a talent for languages as a child. During her adult life, Deanna also recalled having visited Enterprise

NX-01 as a little girl, although she was not absolutely sure, as she always got "those museum ships" mixed up. In grammar school, Deanna had to memorize Jonathan Archer's speech at the Federation Founding Ceremony.

As a child living on Betazed, Deanna learned aspects of Human culture from her Human father, Ian. One such aspect was a fondness for stories set during Earth's Ancient West, which he often read to her. To fall asleep, she would ask him to sing the American song "Down in the Valley"; while this was her favorite, it was his singing that made her feel safe. As she was half-Human and half-Betazoid, she never felt trapped between the two worlds to which she belonged, instead choosing to embrace the richness of her dual heritage. She also heard stories from her maternal grandfather, who told them telepathically; something of a traditionalist, he rarely spoke, saying speech was for "offworlders and people who didn't know any better."

According to a scene cut from TNG: "The Bonding", the Troi family lived on Betazed when Ian Andrew died. After his death, Deanna kept wanting to talk about her father but the Betazoids kept pulling her thoughts out of her head before she could say the words. This made her very angry.

Deanna entered Starfleet Academy in 2355 and began studying psychology at the University of Betazed sometime in the 2350s. During her time there, one of her patients was Tam Elbrun, a Betazoid male who had been suffering from mental instability due to his lack of the Betazoid's natural ability to "tune out" the thoughts of others.

Deanna Troi graduated in 2359, majoring in psychology. On her homeworld of Betazed, she met William T. Riker, a Starfleet lieutenant who was stationed on the planet. The two began a relationship sometime between 2357 and 2361, and the relationship lasted several years. After Riker was assigned to the USS *Potemkin*, the two planned to spend their holidays together on Risa in 2361. However, Will had to cancel their plans after he was quickly promoted to lieutenant commander – deciding to make his career his top priority, Will stopped pursuing Deanna, and the

couple eventually lost contact with each other. (TNG: "Encounter at Farpoint", "Ménage à Troi", "Second Chances") By 2364, Troi held the rank of lieutenant commander. That year, she was assigned as ship's counselor aboard the USS Enterprise-D.

Personal interests

Exercise

Deanna enjoyed swimming, but didn't think swimming on the holodeck was an adequate substitute for swimming in a real ocean. She often used exercise programs on the holodeck, though, when she needed to take her mind off frustration.

Troi and Beverly Crusher often exercised together. With Crusher, Troi also took mok'bara classes.

Chocolate

Deanna once said that she had never met a form of chocolate that she did not like. Data mentioned to Q that, when Counselor Troi was in a bad mood, she often ordered a food containing chocolate. Dr. Crusher once described Counselor Troi as loving chocolate.

Poker

Aboard the Enterprise-D, Troi enjoyed playing poker with her crewmates. She was not known to bluff, according to Worf, but was quick to point out that perhaps she was good enough that he simply never caught her.

Music

Troi once idly played a melody on a piano on Moab IV.

After Starfleet

By 2399, she and her husband William T. Riker along with their two children, Thaddeus Troi-Riker and Kestra Troi-Riker, settled on the planet Nepenthe in an effort to mitigate Thaddeus' Mendaxic neurosclerosis. Unfortunately, the disease proved fatal, and Thaddeus died. He would have survived had the Federation not imposed a ban on synthetic lifeforms after the 2385 attack on Mars. Retired Admiral Jean-Luc Picard arrived on Nepenthe in 2399 with Soji Asha, whom Troi could not sense any emotion from, and Riker immediately recognized as being an android

descended from Data. As Picard had expected, Riker and Troi both offered to help him without hesitation, opening their home to him and Soji for as long as they needed.

Resources

https://memory-alpha.fandom.com/wiki/Deanna_Troi

Manual, Counselor Deanna Troi, College of Medical Personnel, Institute of Medical Arts, STARFLEET Academy

Dr. Beverly Crusher

Commander Beverly Cheryl Crusher, MD, was the chief medical officer aboard the USS Enterprise-D and the USS Enterprise-E, both under the command of Captain Jean-Luc Picard. She briefly left her post as chief medical officer of the Enterprise-D to become head of Starfleet Medical. After a short



while she returned as chief medical officer on the Enterprise- D. She was a Fellow of the Academy of Starfleet Surgeons (Sol Chapter).

Early Life

Dr. Crusher was born as Beverly Howard in Copernicus City on Earth's moon on October 13, 2324. Her ancestry was from North America, although her distant ancestors hailed from Scotland. While Beverly was still a young child, both of her parents were killed. Her grandmother, Felisa Howard, whom Beverly referred to as "Nana", and who had evidently married into the noble Howard family, themselves related to the English Dukes of Norfolk, raised her. They lived on Arvada III, a colony planet, until a moon collision caused the planet to flood, forcing evacuation. It was during this time Felisa learned how to use herbs and roots for medicinal purposes, after regular medical supplies had been

exhausted. This inspired Beverly to a career in medicine. Beverly and Felisa later moved to the Caldos colony, where Felisa became a healer, until her death in 2370.

During her youth, Beverly was known as quiet, shy, and socially awkward. She was also very self-conscious about her bright red hair, and at the age of 13, attempted to dye it dark with disastrous results. She recalled years later that she "couldn't change it back fast enough." In her later teens, Beverly admitted she developed a smart-aleck mouth, which often got her into trouble. She admits to Data that she was often ridiculed and unpopular in school and it had been very painful for her. She also admits that it brought back painful memories of those years when she saw her son Wesley going through similar ridicule as a child. Another time she brought a date with a young man named Tom Norris to an abrupt end with the question, "Is that a beard or is your face dirty?" Beverly later realized that she had really hurt him, and from that point on, she was more conscious of others' feelings.

Education

Beverly attended Starfleet Academy from 2342 to 2350. During her training, she earned her Doctor of Medicine. She graduated top of her class. During this time, she became romantically involved with a fellow cadet, Jack Crusher after being introduced by their mutual friend, Walker Keel. It took months for her to realize their attraction. The two were married in 2348 after Jack proposed to her through a gag gift, a book entitled *How to Advance Your Career Through Marriage*. She had also been called "the Dancing Doctor" when she was at the academy and had won multiple awards at a dance competition in St. Louis, Missouri.

Family

Jack Crusher served aboard the USS Stargazer under Picard, and the couple became good friends with the captain. Picard later admitted he had fallen in love with Beverly, but did not ever express his feelings because he felt that doing so would betray his friend. Almost a year

later, the Crushers welcomed a son, Wesley Crusher, in 2348. 3. After Beverly graduated in 2350, she interned with Dr. Dalen Quaiac on Delos IV in 2352. Jack died on an away mission while serving aboard the Stargazer in 2353. Picard brought Jack's body home to the grieving Beverly and Wesley. He also accompanied her to see Jack's body in the morgue at Starbase 32. Beverly appreciated the gesture, despite the fact that Picard felt it would be better for her to remember him alive rather than as a corpse. Beverly never fully recovered from his death.

Career

Dr. Crusher was appointed chief medical officer of the starship USS Enterprise-D in 2364, and joined the ship at Farpoint Station with Wesley, reporting on board on stardate 41154. Picard initially had reservations about her presence, but she assured him that the past would have no effect on her duties and she had no problem serving under his command.

Personal Interests

Dr. Crusher was an accomplished thespian (related to drama and theater) and playwright. She formed a theater troupe aboard the Enterprise, and produced several classic and original plays, sometimes to the dismay of the crew members she sought to fill the roles. She wrote the plays *Something for Breakfast* and *Frame of Mind*. At various points, her troupe included Will Riker, Data, Geordi La Forge, Reg Barclay, and even Captain Picard. She also taught an acting workshop. Although she was not shy about her theatrical abilities, she was somewhat embarrassed of her past as a dancer, not wanting to be known by her nickname, "The Dancing Doctor." She studied tap and jazz dance, winning at least one award at Saint Louis Academy in St. Louis. She was also familiar with the waltz, and was capable of teaching it to others. Dr. Crusher had varied interests in cybernetics and ethnobotany, and wrote papers on the subjects. When the Enterprise-D was docked at Starbase 74 in 2364, she was eager to meet Dr. Terence Epstein, a leading

authority in the field of cybernetics. Eventually, she published a paper on the subject, which Toby Russell (Doctor Toby Russell was a female scientist and neuro-specialist in the 24th century) considered revolutionary and fascinating. She studied the Klingon mok'bara, use of the bat'leth, and other martial arts with Lieutenant Worf. Her favorite holodeck simulations included Altire VII and the Orient Express. Dr. Crusher was also a regular participant in the Enterprise-D poker games.

Resources:

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Manual, Dr. Beverly Crusher, College of Medical Personnel, Institute of Medical Arts, STARFLEET Academy

Dr. Katherine Pulaski

Pulaski was born in Krakow, Poland, to parents Sabina and Georgos Pulaski. Prior to her posting to the Enterprise, Pulaski served as chief medical officer on the USS Repulse under the command of Captain Taggert (2364?). Captain Taggert was fond of Pulaski, and said he would have given her a personal shuttlecraft if she had agreed to remain aboard the Repulse. In 2365 (?) Dr. Pulaski



was chief medical officer aboard the USS Enterprise- D, under the command of Captain Jean- Luc Picard. Captain Picard remarked, referring to Dr. Pulaski, that he was given a "stubborn, acerbic, cantankerous replacement who I firmly believed was sent specifically to drive me mad." She was a one-year replacement for Dr. Beverly Crusher, who had left the to become head of Starfleet Medical. When Dr. Crusher returned, Dr.

Pulaski returned to work on the USS Repulse. Her Starfleet rank was one of Commander.

Professional Assessment: 2365 Report of Starfleet Medical

One of Pulaski's earlier works, "Linear Models of Viral Propagation," is still used as a standard, and her name is known to many in the field. Among her medical accomplishments are two operations that successfully connected an artificial eye to a regenerated optic nerve, curing birth-blindness such as Geordi La Forge. She outclassed the skills of the resident heart surgeon and bio-molecular physiologist on Starbase 515, where she was called in to save Picard's defective artificial heart during her U.S.S. Enterprise service.

Psychological Profile: Report of Ship's Counselor Deanna Troi

Caustic and stubborn, the dedicated and highly skilled Doctor Pulaski was a long-time admirer of Jean-Luc Picard and put in for a transfer as soon as she learned of Crusher's departure. Her commander, Captain Taggart, formally reported his regret at losing her. During her year-long stint filling in for Dr. Beverly Crusher, Pulaski initially showed high resistance to accepting Lt. Cmdr. Data as a sentient being, but came to regard him with more respect. She also distrusted the transporter and preferred using shuttles when possible. Pulaski has shown an inability to complete long-term intimate relationships, having been married and divorced three times over the 12 years following an intense affair with civilian attache Kyle Riker in 2353 near the Tholian border. She turned Riker down for marriage but remained on good terms with him as well as her ex-husbands (Dr. Lawrence Barnett, Lieutenant Michael Tasi, and Tris Steward. Another source says that one of her ex-husbands was Kellec Ton, a Bajoran doctor). She had three children, one from each of these men.

For relaxation, Pulaski demonstrated during her brief stay that she could hold her own in a game of poker and had interests in galactic literature, including Klingon.

Resources

https://www.startrek.com/database_article/pulaski

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Manual, Dr. Katherine Pulaski, College of Medical Personnel, Institute of Medical Arts, STARFLEET Academy

Nurse Christine Chapel



Commander Christine Chapel was a female Human Starfleet officer in the 23rd century. She served in the Medical Department, a subsection of the sciences division, aboard the USS Enterprise from 2266 to 2270 as a nurse and in the mid-2270s as a doctor under the command of Captain James T. Kirk. In 2286, she

was assigned to Starfleet Command. Her Starfleet serial number was NI-596 MT21Z.

Early Career

While training to be a scientist, Chapel was a student in Dr. Roger Korby's class. They fell in love and became engaged. Following her fiancé's disappearance on the planet Exo III, she abandoned a career in bio-research for a position in Starfleet, in the hopes that a deep-space assignment would one day reunite them. Christine Chapel began her medical career aboard the U.S.S. Enterprise, sacrificing a biology career with several university degrees in research medicine to search for her lost fiancé.

Later Career

In 2266, Lieutenant Chapel was assigned to the USS Enterprise, serving as head nurse under Chief Medical Officer Dr. Leonard McCoy. It was in 2266 when Korby was found on Exo III. He is subsequently discovered to be an android, Chapel elects to remain with the starship, where she became good friends with Uhura and a good friend to Dr. McCoy. Emotionally, her early shipboard life, as admitted when infected with the Psi 2000 virus, was marked by an acknowledged unrequited love for Spock — an ongoing issue which never interfered with her professional duties. Upon completion of the five-year mission she finished her own medical degree and was slated by 2270 to be CMO on the refit U.S.S. Enterprise under Will Decker. Even so, she willingly stepped down to allow McCoy's return as CMO for the V'Ger crisis with Kirk.

Nurse Prowess

While serving as a nurse, Chapel considered her responsibilities as a member of the medical profession to supersede her role as a subordinate crew member on the Enterprise, even to the point of disobeying an order from her superior, McCoy, whose welfare she was concerned about. Once, she used nursing as an excuse for a romantic gesture towards Spock, bringing him plomeek soup, as he had not been eating for three days due to his recent nervous state. Though her actions initially met with the Vulcan's ire, he eventually warmed up to her and apologized, asking for more soup. She cleverly made use of psychology (and deception) in a house call to Ensign Garrovick's quarters, attempting to encourage him to eat some dinner. Brandishing a record tape, she claimed it contained McCoy's prescription to "eat", and assured him the doctor would feed him intravenously if he did not comply. In reality, the tape contained "A Survey on Cygnian Respiratory Diseases". In a half-hearted attempt to mollify Pavel Chekov's disdain at having to submit to yet another round of medical tests, she assured him, "This won't hurt. Much."

Friendships

Leonard McCoy- Though he occasionally referred to her by her first name only, she never called him "Leonard" to his face. Chapel was comfortable with standing up to his orders if she believed them to be incorrect or odd; for instance, she made sure the doctor informed Captain Kirk of his (McCoy's) xenopolycythemia diagnosis, remaining in sickbay until the captain arrived, instead of leaving as per the doctor's instructions. She also questioned his request for two ccs of stokaline to treat a "dying" Spock in 2268. Just prior to a dying McCoy beaming down to the surface of Yonada in 2268, she admonished him to make the most of his remaining time, as "A lot can happen in a year." In an effort to protect her from being penalized for following his orders, instead of Arthur Coleman's, McCoy told her to administer a sedative to "Janice Lester" against his better judgement. Upon hearing that she'd become a doctor, McCoy was reluctant to work with her, as he was of the opinion that she, like other doctors, would argue about every diagnosis he made, rather than take the orders he gave.

Nyota Uhura

Uhura was on a first name basis with Chapel as early as 2267. Chapel, on the other hand, never referred to her by anything other than her last name or "lieutenant". This may not signify anything as Uhura's first name had yet to be established in canon. As Chapel departed the bridge to see Roger Korby for the first time in years,



Uhura wished her all the best with a sisterly kiss on the cheek. Chapel closely aided the communications officer in relearning the knowledge Nomad had stolen from her. Upon Uhura successfully reading (in English

rather than Swahili) the sentence "The dog has a ball", Chapel hugged Uhura.

Resources

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Manual, Nurse Christine Chapel, College of Medical Personnel, Institute of Medical Arts, STARFLEET Academy

Nurse Alyssa Ogawa



Nurse Alyssa Ogawa was a Starfleet officer aboard the USS Enterprise-D, and later, the USS Enterprise-E. She was one of the head nurses in the ship's sickbay, assigned there in 2367 as an ensign. Upon recommendation of Dr. Beverly Crusher, she was promoted to lieutenant junior grade in 2370. Ogawa became a senior sickbay staff member, and would make reports to the senior staff in Crusher's absence.

Early Life

Alyssa, the daughter of Luci and Kenda Ogawa was born in Vancouver, British Columbia, on Earth in the year 2343. In 2361, she entered the Starfleet Medical Nursing program and graduated in 2365 in the 95th percentile. After attaining the rank ensign, Ogawa was assigned to Starbase 133 under Doctor Dalen Quai.

USS Enterprise- D

In late 2365, Ogawa was transferred from Starbase 133 and was assigned to the nursing staff aboard the USS Enterprise-D under chief medical officer, Katherine Pulaski. Following the loss of the Enterprise-D in 2371, she returned to the Enterprise she began serving under Dr.

Beverly Crusher. Ogawa and Crusher became friends, and Crusher was so impressed with her work that she recommended that Ogawa be promoted to Lieutenant junior grade.

The USS Enterprise- E

Following the loss of the Enterprise-D in 2371, Ogawa was promoted to full lieutenant, and assigned to the new . Ogawa also developed a relationship with Lieutenant Andrew Powell from engineering and the two became engaged in 2370 They conceived a child together later that year. It was born in 2373. In the novel *The Genesis Wave*, Book 3, which takes place in 2377, Ogawa's child was a girl named Suzi, and her husband Andrew was still alive. In the ongoing *Star Trek: Titan* series, however, the child is a boy named Noah Powell, and Andrew had been killed in the Dominion War. Following Andrew's death, Alyssa and Noah became very close to Enterprise shipmate Ranul Keru, who had suffered a similar loss. Noah came to consider the Trill to be an uncle.

The USS Titan

In 2379, Ogawa and Noah transferred to the USS Titan during its exploratory mission of the Gum Nebula, where she served under chief medical officer Shenti Yisec Eres Ree.

The USS Challenger

As of 2382 Ogawa was serving as chief medical officer aboard the Starfleet Corps of Engineers vessel USS Challenger during its mission to recover the *Intrepid*. Ogawa oversaw Starfleet's efforts to recover the remains of the crew during that mission. Her assignment to the Challenger ended in 2383 due to the destruction of the vessel while investigating trans-slipstream. She awaited reassignment at Starbase 410.

Return to the Titan

By early 2386, Ogawa had returned to her position as head nurse aboard the Titan.

Psychological Profile: Report of Ship's Counselor Deanna Troi

Quickly rising to become one of the chief medical officer's major nurses and surgery assistants, Alyssa Ogawa displays a healthy cheerfulness and concern for her patient as well as a cool head in the type of crisis her career demands.

Professional Assessment: Report of CMO Beverly Crusher, M.D.

Ogawa has assisted this surgeon with high skill and flying colors under numerous stressful situations, including the revival of the captain when in the grip of a Kataaran neural probe beam, assisting during highly experimental surgery to replace the chief of security's spinal column, and the crash of the vessel's saucer section on Veridian III in 2371. Ogawa has also demonstrated a personal bond and trust with her superior that no one in the department currently can match, risking her career to perform a banned Ferengi autopsy during my temporary and unwarranted relief from duty in 2369.

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Manual, Nurse Alyssa Ogawa, College of Medical Personnel, Institute of Medical Arts, STARFLEET Academy

Lieutenant Junior Grade, Deborah Keyes

Macronutrients And You!

The human body is both a wondrous and mysterious thing and its ability to convert a good portion of things into resources and energy is enviable when compared to any Starfleet warpcore.

But just because your body CAN process certain materials doesn't necessarily mean it should!

Understanding that your body processes certain materials in certain ways is essential to living healthy, hence enters the humble macronutrients. But what is a macronutrient, you cry, as you read this article. Well to explain that, we need to start at step 1 and that is that everything you consume contains calories. These calories reflect energy, not nutrition.

For most people, a restricted calorie plan is the first step in attempting to regulate one's body health. that reduces the amount of energy consumed. While this is a reasonable place to start, it shouldn't constitute your entire approach and could even end up damaging your body.

When it comes to the food one eats, calories only paint part of the picture. They represent the raw energy you consume, but where they fall apart is that they don't explain the nutritional aspects of what you eat. Counting calories ensures you get the right amount of energy as you work toward your health goals, but this process won't help you make smart choices that will boost your health in the long run.

"Macros" may unfortunately have become a bit of a buzzword recently (I do hate buzzwords), but these components are like old friends. We can break down the food you consume into three macros namely, carbohydrates, protein, and fat. These are the building blocks of your food, and most items you eat provide two or even three macros in combination.

One of the biggest differences between tracking Macros to counting calories is that calories focus more on quantity of consumption, whilst macros highlight the quality. As such, chomping down on sugary treats

strangely prohibits you from eating fresh fruits and vegetables due to reaching the limit in your daily calorie count.

In contrast, tracking macros often encourages you to make healthier food choices. A healthy diet plan consists of a balance of all three macros, (Unlike certain Diet plans which cut entire aspects out of your diet) so it ensures that you consume enough carbs, protein, and fat while fueling your body with the right amount of energy. After all, it's a simple equation. Every day your body needs to consume X amount of energy to run. You might be able to sneak in a sweet treat, but few macro ratios would allow you to overload on carbs. Instead, you'd need to consume proteins and fats, such as lean meats, nuts, and seeds, to get the right daily count.

Most macro ratios follow the acceptable macronutrient distribution range (AMDR), a scale determined by the Food and Nutrition Board of the Institutes of Medicine. For optimal health, the average person needs an AMDR with 45 to 65 percent carbs, 10 to 35 percent protein, and 20 to 35 percent fat.

To burn fat and lose weight, you'll typically want to increase your protein and fat intake while decreasing your carb intake. Researchers have shown that increasing your protein intake can help you feel as if you've had enough to eat, resulting to lower consumption of calories in a day, so prioritizing protein at the expense of other macros can be a smart choice if you're hoping to bring your calories in check. In this case, your macro breakdown might include 40 percent protein, 30 percent fat, and 30 percent carbs, although the exact ratio will depend on your unique needs.

Conversely, to build lean muscle while burning fat, you'll typically need to work more carbs into your macro ratio, so you have enough energy to get you through weightlifting sessions and enough protein to build muscles. In this case, your macros might include 50% carbs, 30% protein, and 20% fat.

Tracking macros can be challenging, as the process involves a series of math equations. Fortunately, there's an easier way to tackle tracking

macros. Rather than calculating your total daily energy expenditure (TDEE) and adjusting for weight loss or muscle gain, the marvels of modern technology can do the heavy lifting for you. The “MyFitnessPal” App very quickly and easily allows you to check a breakdown of your diet and all you have to do is log your meals as they occur. Over time you will be able to spot where exactly in your diet you are deficient or overindulgent and easily adjust to a healthier lifestyle.

Tracking macros might be more complicated than counting calories, but it’s likely to pay off if you stick with it. Prioritizing nutrients over energy can help you make healthier food choices while giving your body the fuel it needs to meet your goals.

this article is for information only, please consult your GP before making any changes to your diet.

LCDR Gregg Barlow

Region 8



The “Mostly” Unsung Medical Heroes of Starfleet

I’ve always wondered why there were so few Doctors portrayed on the various series of Star Trek. In each of the series, it appears there is only one Sick Bay and a limited number of Doctors. I wanted to see if I could find other medical doctors who served in each of the series, but could only find other physicians for The Original Series and The Next Generation. It isn’t inconceivable that the Enterprise NX-01 only had one physician and a small Sick Bay. But Deep Space 9 and the USS Enterprise NCC-1701-D should have had several physicians with either a much larger sick bay or multiple sick bays.

The Original Series

Doctor Sanchez was a 23rd century Human Starfleet medical examiner who served aboard the USS Enterprise under Captain James T. Kirk during the mid-2260s. While technically not a physician, at least he was an MD. In 2268, Dr. Sanchez conducted an autopsy on Ensign Wyatt after he was killed by Losira. He discovered that the cause of death was cellular disruption - as if "each cell had been individually blasted from the inside", and ruled out a pathogen as the cause of this disruption. (TOS: "That Which Survives")

Doctor M'Benga was a male Starfleet medical officer who served aboard the USS Enterprise under Captain James T. Kirk, during a five-year mission the starship undertook. M'Benga was mentioned or seen in several episodes, making him the most visible of the “other” doctors. In the event of Chief Medical Officer Leonard McCoy's absence, M'Benga became the ranking CMO. He conducted his medical internship on Vulcan, an experience that made him particularly skilled in treating members of that species. In 2268, M'Benga treated First Officer Spock for a serious gunshot wound. He had to slap Spock violently to bring him out of his Vulcan healing state. (TOS: "A Private Little War"). M'Benga’s actions were

not immediately understood by Dr. McCoy and was the source of some tension for a moment.

The Next Generation

Doctor Hacopian was a physician serving aboard the USS Enterprise-D in 2370. That year, Doctor Beverly Crusher wanted to consult Hacopian and Selar after it appeared as if a virus had begun to ravage the ship, later determined to be the first case of Barclay's Protomorphosis Syndrome. (TNG: "Genesis") This doctor was only mentioned in dialogue.

An interesting side note: The character was named after writer Brannon Braga's chiropractor. (Star Trek: The Next Generation Companion (2nd ed., p. 289))

Doctor Hill was a physician serving aboard the USS Enterprise-D in early 2367. After Doctor Beverly Crusher became trapped in a warp bubble, her thoughts created an entirely separate universe where people and objects began to disappear. In this alternate universe, Crusher tried to call Hill and Selar to sickbay in order to assist in an examination of Miles O'Brien. However, both had disappeared and their families and colleagues had no recollection of them. (TNG: "Remember Me")

This character was only mentioned in dialogue.

An interesting note: The cut scene 15A from "Remember Me" established Hill's first name was Richard and that he was Crusher's staff osteopath. He came on board six months prior to the episode with his wife, Cara, who was an exobiologist.

Doctor Martin was a 24th century, Human male, Starfleet staff physician who held the rank of lieutenant. Martin served aboard the Federation starship USS Enterprise-D under the command of Captain Jean-Luc Picard in the 2360s. In 2368, when CMO Beverly Crusher was incapacitated by a telepathic violation, Dr. Martin was made the primary physician on her case, as well as the violation cases of Commander Riker and Counselor Troi. (TNG: "Violations")

Dr Selar. Of all the “other” physician’s in the series, perhaps the most fleshed out is “Dr. Selar. Part of this could in part be because Selar was played by fan favorite Suzie Plakson. Plakson also played Worf’s love interest K’Ehleyr on The Next Generation, a female Q on Voyager, and Shran’s mate, Tarah on Enterprise.

In 2365, Selar was part of an away team which responded to a distress call from Gravesworld. Selar was sent instead of Dr. Katherine Pulaski because the Enterprise needed to rescue the damaged transport vessel USS Constantinople several light years away. She examined Dr. Ira Graves, despite his protests, and diagnosed him with Darnay's disease. Selar was later called to the captain's ready room by Captain Picard to discuss what had happened on Gravesworld and possibly shed some light on Lieutenant Commander Data's unusual behavior. (TNG: "The Schizoid Man")

Dr. Beverly Crusher assigned Selar to sickbay ward three in mid 2369. Selar was to treat ambulatory cases resulting from a Lenarian assault on a conference attended by the Enterprise. (TNG: "Tapestry") Selar was on duty in sickbay in late 2369 when Dr. Crusher was relieved of duty after she performed an autopsy on Dr. Reyga against the policies of the Ferengi death ritual. After Guinan came to Crusher complaining of tennis elbow, Crusher suggested she go see Selar. Guinan refused, claiming she was very particular about her doctors. (TNG: "Suspicious") In 2370, Crusher had Selar run a biospectral analysis on the body of Ned Quint after he was killed by Ronin. (TNG: "Sub Rosa")

Dr. Crusher wanted to consult Selar and Dr. Hacopian in mid 2370 after it appeared as if the entire Enterprise crew was affected by a virus. Before they could arrive in sickbay, Crusher was nearly paralyzed by venom after being attacked by Worf. The infection was later determined to be the first case of Barclay's Protomorphosis Syndrome. (TNG: "Genesis")

- Much of the information for this article came from MemoryAlpha - <https://memory-alpha.fandom.com/>

- Fleet Captain Jim Landelius
Men's Health Section Chief



Who Are Your Doctors?

Julain Bashir



Julian (né Jules) Subatoi Bashir, MD, is best known as the Chief Medical Officer of space station Deep Space Nine (the former Cardassian ore processing station Terok Nor), as well as the USS Defiant. He was born in London, Terra (Earth), on August 29, 2341 to Richard and Amsha Bashir. He had no siblings. Bashir showed early signs of medical aptitude as far back as age five when he performed “surgery” on his beloved teddy bear, Kukalaka. However, even at that young age, Bashir was not very bright, not to mention small and physically awkward. He was barely able to read or write, felt self-conscious about it, and felt he was a disappointment to his parents. They noticed young Jules was struggling both cognitively and socially, so in 2348, the Bashir family went to Adigeon Prime, so Julian can receive treatments for “accelerated critical neural pathway formation.” In other words, he was subject to genetic re-engineering - direct re-sequencing of his DNA. Over the course of a few months, Jules’ IQ went up by 70 points and further treatments helped improve hand-eye coordination, stamina, height and weight. The Bashir

family kept Jules' treatments a secret due to the Federation's severe restrictions on genetic alterations and augmentations. Such treatments were a violation of UFP laws and regulations. When. The family moved back to Earth soon enough, to a completely different city, so Jules could attend a completely new school. In contrast to how he did before his genetic manipulation, Jules was consistently at the top of his class.

At age 10, in 2351, Jules and his parents moved to Invernia II, where Richard was assigned for diplomatic duty. While on the planet, an ionic storm hit where the family lived. A girl in Jules' community was exposed to the storm and grew sick. She subsequently died due to unavailability of treatment and an inability of anyone to treat her properly. At this point, Jules decided that he would seek a career as a physician. In 2356, he legally changed his name to Julian, as an attempt to distance himself from "old Jules." Three years later, Julian entered Starfleet Medical Academy, taking a slightly unconventional route to becoming a physician. He also had an interest in starship operations and took several Starfleet Academy courses in engineering, as well. Julian did try his hand at sports, giving thought to a career in tennis, prior to going into Starfleet Medical. He played for the Academy racquetball team, and eventually made captain, taking his team to a championship in 2368. He eventually graduated from Starfleet Medical second in his class; as it turned out, Julian set himself up to be salutatorian so as not to attract suspicion of his overachieving.

On graduating, Julian was commissioned as a Lieutenant (Junior Grade) in Starfleet, and was given his pick of assignment. In 2369, Julian chose a billet on Deep Space Nine, transported there onboard the USS Cochrane, and was attracted to a romanticized notion of practicing "real frontier medicine." He came with an earnest, almost over-eager demeanor, and a degree of curiosity that, early on, would rub his colleagues the wrong way.

Life on Deep Space Nine and the USS Defiant:

2369: Befriended Elim Garak, the “tailor” on Deep Space Nine (some say he was a spy for the Obsidian Order, the Cardassian Union’s main intelligence agency)

2371: Nominated for the Federation Medical Council’s Carrington Award for his work on biomolecular replication, also continued research of T-cell anomalies and immunotherapy

2372: Promoted to Lieutenant

2372: Discovered a treatment for the Teplan Blight, which would “quicken” when exposed to electromagnetic fields, awarded a commendation by Starfleet

2372-2373: Diverted to Ajilon Prime, during the Klingon War, to assist in medical triage

2373: Involved in a “temporal incident,” that sent Julian and his crewmates back to the year 2268

2373: Captured and imprisoned by the Dominion on Meezan IV, during a medical conference. He was replaced by a changeling for about a month

2373: Considered as the template for a Long-Term Medical Hologram, but during the course of development, Julian’s history of genetic augmentations were found out. He was allowed to retain his Starfleet commission, after a plea deal where Richard served prison time for violation of Federation law

Late 2373: Deep Space Nine evacuated, retaken by the Cardassian Union, transferred to USS Defiant NX-74205, where he served as Chief Medical Officer, until the station was recaptured in 2374

2374: Allegedly contacted by an “Agent Sloan” of “Section 31,” filed report of this agency to Starfleet and the Federation government

2375: Presented a medical lecture on ch’Rihan (Romulus) on research on the Teplan blight, was contacted again by “Agent Sloan,” who attempted

to recruit Bashir to assassinate Koval, the reputed chairman of the Tal Shiar

2375: Fought in - and survived - the siege at AR-558.

2376: Discovered that "Section 31" had released a morphogenic virus that killed the Founders of the Dominion and almost killed friend Odo

2376: Dominion War ends

To be continued...

Capt Ariel Vitali

Region 7

Please State The Nature of The Medical Emergency

The Doctor is a fictional character that is found on the Star Trek series known as "Voyager". The Doctor is a "Emergency Medical Hologram Mark I. The Doctor also appeared in Star Trek First Contact as well as Star Trek The Experience. The former is an amusement exhibition that was in Las Vegas Nevada.

Originally "The Doctor" was supposed to be available in extreme emergencies but later on, ended up with a more formal role as Chief Medical Officer. Kes and Tom Parish become his nurses at various times through the series. The Doctor primarily resides in the Sick Bay area of the ship. When activated the crew will hear "Please state the nature of your emergency." Later the Doctor was able to say whatever he wanted. Audiences were said to have enjoyed The Doctors quick wit and dry sense of humor.

Even though The Doctor was a Hologram, he was able to enjoy a romance here and there. What is a good television series without some

good old fashion romance. The Doctors first love interest was Dr Denara Pal, and later he fell in love with 7 of 9. Sadly 7 of 9 was unable to reciprocate The Doctors feelings due to her programming.

It is my opinion that The Doctor was a very delightful and funny character. He always had valuable information and ready to help.

CMDR Laura Felty RN

CMO of Dark Phoenix

Assistant Surgeon General of Region 12



A physician is much more than the sum of all the knowledge gained in school and in practice. They must be able to relate that knowledge in an understandable way, empathize with the patient and their family, and bridge multiple disciplines through treatment protocols. It would be so simple and easy to simply dump all known knowledge into a diagnostic program, and in many cases would be significantly more effective. However, while it would be incredibly effective, it could have the well known psychological trauma of asking WebMD about that bump on your

arm and getting a cancer diagnosis. This is exactly the premise of the Emergency Medical Hologram, or EMH, first utilized in Voyager.

The EMH was the brainchild of Dr Lewis Zimmerman at Jupiter Station, and functioned as an emergency back up in case ship medical personnel were incapacitated or overwhelmed. Stored in the ship's computer as "Emergency Medical Holographic Program AK-1 Diagnostic and Surgical Subroutine Omega 323," the EMH program was activated upon the loss of the ship's physician upon arrival in the Delta quadrant. Rather than a history of this quite amazing, and plot benefitting, ship feature, it is the contrast of the human element with the programming aspect that both highlights the possibilities for the future that really merit attention. The relationship of the EMH to the formal command structure and the interaction with the crew demonstrates the evolving understanding of the EMH as more than that of a healthcare provider. Note that the EMH is a program, and a challenge throughout the series is "his" lack of status as a sentient being drives much of the story.

As mentioned, the importance of a human as the conveyor of health diagnoses and treatments cannot be understated. Many a human physician or other healthcare provider has been berated by patients as "good, but cold." It is quite simple to look at data elements that fit a specific diagnostic criteria and state an outcome/condition. But knowing that everyone receives information differently, sometimes not understanding or accepting the diagnosis, makes the human element so critical. As the EMH progresses through the series, he not only seeks to understand how to better communicate with those injured or afflicted, but seeks to better understand what it is to be human. Even setting up a holographic family to gain that understanding is part of the process. The amount of diagnostic and other assessment information available through the wealth of centuries of multiple planets/species medical knowledge does not make a data construct a physician.

A medical officer in Starfleet has a unique role, both within the command structure as well as the ability to remove even a Captain from

command if the medical conditions call for it. As the EMH has no classification as a sentient being, it also has no official rank. However, as is demonstrated multiple times, that doesn't stop him from affecting crew dynamics both by medical protocols as by force of will. Interestingly, the desire to evolved into the Emergency Command Hologram showed the ability of the program to adapt and evolve as the program was allowed to develop.

As we develop AI and enhance our medical understanding, we will have the opportunity to utilize the wealth of knowledge in our expeditions to Mars and beyond. The use of computer physicians to provide diagnoses and treatments for our own isolated explorers will need to be balanced with the very human need to engage with a "human" voice and perceived understanding of the emotional impact of healthcare. Perhaps an EMH is in our future as well that could benefit from the experiences of our own EMH. Whatever that looks like in the future, the EMH in our timeline would need to be able to say, "I'm a doctor, not a..ahem.. and a computer program."

Capt Brett McIlff

Region 17

What's Up, Doc?



We have a lot of talented crew members in SFI, and for this issue of the 'The Hypospray' I wanted to reach out to some of our real-life doctors in STARFLEET with some fun questions to see how they would respond.

Many thanks to Ariel Vitali, Stephen Vetrano and Hector Gutierrez Jr for their fascinating answers!

Why did you decide upon Medicine as a career?

Ariel: "I heard all the time from the grown-ups around me that I was so smart, that I would make a good doctor, I internalized that deeply and thought that would be my path. Also, to be fair, I did have a knack for certain subjects in school, especially biology, and later, chemistry and pharmacology. I also got that Scouting badge for First Aid quite quickly. I also had that affinity to lean toward others when they were hurt or suffering. As well, I know I did not have the temperament to deal with rejections if I had gone to become a professional actor and/or musician. I also truly sucked at sports, so any prospects of playing outfield for the Los Angeles Dodgers or Los Angeles Angels went out the window pretty quickly."

Stephen: "Mostly because of my dad. He was a dental technician in the US Navy during the Vietnam war. When he got home, he went back to work at the 'family business' with his dad, a small scrap metals and antique shop. He pushed me and my brothers to go to school, get an education, and not to do what he did. I started looking at the medical fields, thought about dentistry, pharmacy, a brief thought about law, but

eventually came back to medicine. A day in the orthodontist's chair told me not to go into dentistry."

Hector: "As a teen doing a Boy Scout project, I became involved with a volunteer ambulance service in my community, and in high school 1972 a tv show called emergency came out and I was hooked. My family could not afford for me to go to college, and there was a strong military background, so I signed up for the GI bill and training as a military medic or corpsman, equivalent of a basic EMT.

What field of medicine do you specialise in or work in?

Ariel: "I have specialty training in General Psychiatry and added subspecialty training in Child and Adolescent Psychiatry. I am board-certified in General Psychiatry. Currently I work only with adolescents in a hospital setting, for Sheppard Pratt, in suburban Baltimore, Maryland."



Stephen: "I am an American osteopathic emergency physician. I have the DO degree. In the US, Osteopaths are fully licensed physicians that can practice medicine and surgery. Not true in other areas of the world, where osteopaths stay true to the roots of the founder of the profession and practice strictly manipulative medicine. I have been a New Jersey licensed Emergency Medical Technician since my undergraduate (college) days. I rode on volunteer ambulances and worked for a private EMS transport company. Having been an EMT, it seemed a natural progression to go into emergency medicine. Now, I put my skills as an ER doctor and EMT together and serve as an EMS Medical Director for many EMS agencies. Truth be told, I originally did not apply to DO schools. My pre-med advisors only mentioned Osteopathic medicine in passing. At the time I applied, however, there was a boom in medical school applications, so it became more competitive. I was waitlisted at two medical schools, the MD schools in NJ. I was talking to a friend on campus and he asked me if

I had applied to DO schools. I told him I had not yet; and he advised me to do so, stating, “what have you got to lose?” I looked at him and said, “You know what Mark, you’re right! I don’t have anything to lose.” I applied to the NJ school and the Philadelphia College of Osteopathic Medicine. I got an interview at the NJ school, met with the director of admissions who took a liking to me (we are both 5ft 2!) and got me into my interview. My interviewer told me I had an incredibly strong application, and if the governor signed a bill that would add five more seats to the incoming class, I had one of those seats. Thank you, Gov. Christie Whitman! All that summer, while waiting to start, working for a private ambulance company, I was looking forward to having my aching back worked on. I can say becoming an osteopathic emergency physician has had its rewards. A fellow Jersey boy became the American College of Osteopathic Emergency Physicians President, and he recruited me to be on the EMS committee. I eventually became committee vice chair, then committee chair, and earned the ACOEP’s award for excellence in EMS. But more important than that, I have a new family, a group of DO EMS docs from around the country that all come to ACOEP meetings and we all hang out together.”

Hector: “Emergency medicine for the last 21 years. Prior to graduating medical school 20 years as a senior medic, airborne and flight qualified Paramedic in the army.”

If you could have any career in Starfleet Medical, what position or posting would you choose and why?



Ariel: “Earlier in life, I had quite a bit of wanderlust, so I could not mind seeing the sights, and work as a medical officer on-board a science vessel, along the lines of a Nova-class. As I am getting older, well, I still want to travel,

but I'd sooner be established in one place and just go travel whenever I can, so these days, working at a shore facility in one of the core worlds wouldn't be so bad."

Stephen: "Being an ER doc and EMS doc, I would one day like to be the Emergency Preparedness coordinator. Right up my alley. Emergency preparedness or Emergency Management is in the same fields as my current work, but there are separate training programs in that field, and I am currently working on that. I am currently taking a Federal Emergency Management Agency course online in Fundamentals of Emergency Management and hope to one day take a full-on Emergency Management course, either thru FEMA or a local EM course run here in NJ."

Hector: "My dream position would be a ships surgeon with flight medicine and emergency medicine as my specialty. Which I am currently work for in the SFMC. "

Tuvix: Was Janeway right or wrong in killing him, and why?

Ariel: "First, I am thankful for having access to "Star Trek: Voyager" on two services, so I did not have to rely on my memory of the episode. My first thought, off-the-cuff, of course, was that Janeway was right in separating Tuvix. But then, I got on Netflix and re-watched the episode. The general public knows of one component of



medical ethics: do no harm. It is one of four fundamental principles of medical ethics (at least how medicine is practiced in the United States, Western Europe and the Commonwealth of Nations), subsumed under non-maleficence. There are three other basic principles, as well, which include autonomy; beneficence; and justice.

All four principles were salient in this episode, but most prominent were autonomy and non-maleficence. Accident or no, Tuvix is a sentient/sapient being in his own right, and even reported that while he holds memories of two beings, he has one consciousness. He is his own person, with his own sense of – and right to – autonomy. As well, back to the principle of non-maleficence. What most people do not realize that the English translation of that phrase is incomplete. Translated from Latin, it is “first, do no harm,” being mindful that one must weigh the consideration that treatment, even something deemed benevolent, would inadvertently cause harm.

Tuvix pleaded for his life several times, and even tried to get Kes to intervene on his behalf, to influence Janeway’s decision to divide him back into the original people. He is exercising his autonomy to stay alive as he is in that place and time. Justice should prevail and Tuvix’s wishes should have been respected. As well, while the transporter “surgical procedure” had significant risk, it could have brought back Tuvok and Neelix, but first, one needs to consider that that would harm Tuvix. The EMH was clear in his assertion that he would not harm the patient in front of him, which led Janeway to take matters into her own hands.

So, was Captain Janeway right or wrong? She was coercive, aggressive, a bit selfish, not a medical professional and quite in the wrong. If I were a medical officer in a real-life Starfleet, I would invoke Regulation 121, Section A, declare Janeway unfit for duty and likely report her to Starfleet HQ once Voyager made it back to the Alpha Quadrant.”

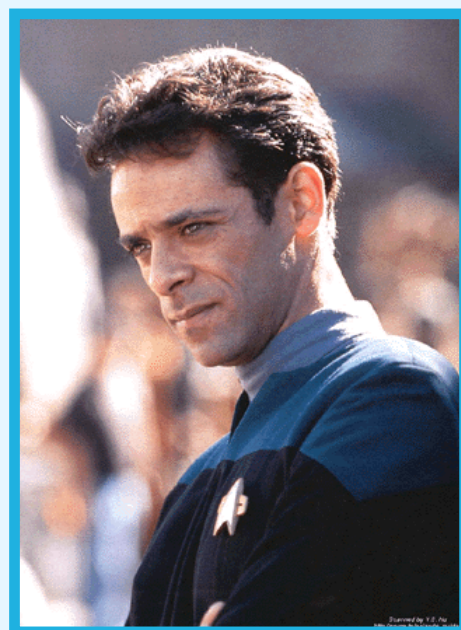
Stephen: “No comment. Truth be told, did not see the episode. I know, shocker, a Star Trek fan who has not seen every episode at least twice! Well, I was in medical school when Voyager aired in the US, so I was a little preoccupied!”

Hector: “Wow tough call, “Do no further harm”, you are working with three people's lives here. Two were combined to make the third and each has the right to live. It is a moral issue, similar to a pregnant woman who is pregnant and with current standards you can only save one, we

are not God, and you have to live with the choice the rest of your days. Janeway choice was for the greater good of her crew. The two people held important positions and their actions were essential for the survival of the rest of the ship. And you knew she tossed and turned at night about that choice.”

You have been told that you can pick any Starfleet doctor to work with and be mentored by. Who would you choose and why?

Ariel: I would say Dr. T’ana, but she can be a bit of a grouch (I just happen to really enjoy “Lower Decks” and I do appreciate her use of colourful metaphors). All said, I would say Julian Bashir, seeing as he showed up around the time, I was wrapping up medical school myself and jumping into my residency training. We are sort of medical contemporaries. He was a pain in the ass, much like I was when I was younger. I would also have to help him on his neuroanatomy and on those historical holodeck scenarios. I do not know, though. Dr. Bashir is quite the



overachiever; you might think he was genetically enhanced or something. (Also, I’ve sort-of gotten to know Alexander Siddig a bit since the start of the pandemic, as he hosts a semi-weekly social chat on Zoom. It is not like we’re buddy-buddy; it is definitely a para-social relationship, but it’s nice that he volunteers his time to be with some of us fans. It helps pass the time and the social connections help both him and the rest of us.)

Stephen: “Tough question. I would have to go with Dr. Phlox. I loved how he incorporated non-traditional medicine in his work, but I must give kudos to The Doctor (EMH) for that one episode where he performed Osteopathic Manipulative Therapy; and Dr. Julian Bashir when said it best in the first episode, “this is real frontier medicine”. Both he and Phlox remind me of Emergency Medicine, especially the night shifts. I love

nights, the culture of the staff is different. That sick patient comes in, and all of us, all the nurses, me, the techs, we are all in the room each doing are thing to stabilize the patient. It is that way because...we are it. There is no robust medical staff in house at 0200 to come help me out. Phlox and Bashir embody that spirit: they were it: no other doctor to help them out. It is strange, we take pleasure in other people's suffering; or, to put it better, we are at our best when you are at your worst."

Hector: "Leonard McCoy, I loved his southern country doctor approach. He was fallible and not afraid to be human. His teaching style I would be learning a great deal of true art of medicine."

Xenobiology: which is your favourite species to work with?



Ariel: "Vulcanoids because I wouldn't mind a challenge like that right now. I get bored easily."

Stephen: "Vulcans. I respect the logic lifestyle. Highly disciplined, well versed in science. A great compliment to medicine."

Hector: "Vulcan/Romulan: Two races with the same genetic basis. The physiology and psychology of these two races from the same template. As Spock would say, fascinating!"

If you could share one lesson of life with people from your experiences, what would you share?

Ariel: "Do not be in such a hurry to get to, and through, your medical career. I did that, and it contributed to quite a breakdown, which ironically, put my path to a screeching halt for many years, and led to me dropping out of medicine. It took a lot of effort, the love of my wife - and six years - to drop back in. Enjoy the ride, and if it's too hard to enjoy, learn from the struggle."

Stephen: “This is a difficult question, but I think the most appropriate thing to say here is the punchline from a story about scientific experimentation by a 7-year-old: All life, should be treated as Waterford Crystal. If you respect life, no matter your personal biases, you will do well in your own life.”

Hector: “Set realistic goals for yourself then commit to it, won't be easy but very rewarding, I had to go back to school after 19 years from high school graduation to reach my goal, if your heart is into it you can also!”

Where do you see yourself in Starfleet medicine in 10 years' time?

Ariel: “I'll still probably be CMO of my tough “little” ship (the USS Banneker is a Galaxy-class, so that's why the quotes). I also don't plan on leaving Region Seven, so if I'm not Surgeon General by then, I'll probably still be the Regional Assistant SG.”



Stephen: “Hopefully with a rank higher than Ensign! I would not mind having a national position, such as one of the committee chairs (e.g., Emergency Preparedness, Men's Health), but if I stay DASG for R7, I have no problem with that! I do say, when I am in the ER, to my nurses, that if the phone rings and it is NASA asking me to come to the Cape for the next launch to go up on a mission...good luck running the ER without me! Call the boss to cover my shift! I am outta there! So, if Starfleet comes to fruition, I would love to be medical officer on a Starship. Of course, while my PhD Biochemist wife might be ok on a Starship, I doubt my 15-year-old who wants to sing and act on Broadway, and my 11-year-old math whiz/dancer will be ok with that!”

Hector: “I would be happy as the chapter chief medical officer, since 1975 I have seen and I have done a bit of everything, seeing leprosy, malaria, major minor trauma in and out of battle fields. Delivered babies,

helped kids for the future to replace me when I retire, look forward to sit back and care for my crew.”

LT Commander Pippa Slack
Deputy Surgeon General
SFMD



Memory Alpha

The Essence of the Medical Profession

by Anne-Laurre Perrin

2382

Commander Vaiata Mallory, just forty years old, was the CMO of the USS Callisto. She was one of those many chief medical officers who worked directly in the field and whom the senior staff at Starfleet Medical knew little about. It must be said that it was not her type to seek honors and recognition, she was doing her job the best she could and that was enough for her. Yet physically, she didn't go unnoticed with her dark hair, dark skin tone and green eyes, being the result of an relationship between an English father and a New Zealand Maori mother.

In other words, being on Earth for a medical symposium interspersed with social gatherings was not exactly the part of her job that she preferred, but her CO had felt that it would be useful for the advancement of her career and personal development. She had nevertheless run into a few members of her class, at least those who had survived the Dominion War. Because her promotion had done their internship during much of the war, and given the rate of loss of medical personnel, they were sent barely graduates, still wet behind the ears, directly to the front line. If it hadn't been easy at all, Mallory had to admit that it had been very educational for her. It was to such a point that the promotions of those years had been nicknamed "war doctors" because of their special skills acquired on the front lines.

As some of the reception guests headed for the nearest auditorium, she drew the conclusion that Crusher's intervention was about to begin. She followed suit and sat down at the back of the room. She could hear it perfectly well and had never liked playing the good students. Crusher made her entrance a few minutes later. Mallory recognized her easily. She hadn't changed much, just a few rather discreet traces of age.

She sat down and began to speak in a quiet, caring voice.

"Good morning all. Since you are all medical professionals from different backgrounds, I planned this intervention partially in interaction ..."

Indeed, most everyone knew more or less her background, but she recalled it succinctly and Mallory admired her way of not putting herself forward, even if she could have seen his resume more than provided. After her recap, Crusher raised her head and surveyed the assembly.

"You all come from different backgrounds, you have had more or less the same training but your experiences are different. Now, I would like us to discuss what makes for you the essence of your job ..."

Mallory would never have been the first to speak, but luckily for her other doctors stepped in and gave their version. Several things came back: care for people, research (for those who worked in the laboratory or who were more oriented on it), for some the fact of seeing the country and thus getting to know other peoples and therefore other ways of healing.

Many had spoken when Mallory decided to speak too.

"For me, the essence of my job is saving lives at all costs, in all possible conditions and sometimes with what I have on hand ..."

Crusher didn't comment, just asking if anyone still wanted to speak. As it was no longer the case, she spoke again:

"That's exactly what I thought, you have the same degree but your job, if it's the same on paper, is still something different depending on your experiences. If I have one piece of advice for you, and if you're willing to accept it from an old roadster like me, it's to keep your specifics, they are your strength. Your career, you build it yourself, at your image, do not let anyone appropriate it for you. Thanks for your attention... "

Everyone applauded, got up and started to walk out. Mallory took a few steps out of the auditorium and heard someone calling behind her. She turned, and recognized Crusher. She looked around, thinking she was calling someone else, but there was no one around her anymore.

Crusher joined her and said with amusement:

"Yes, I wanted to talk to you. What were you imagining? "

Mallory, surprised, came to attention. After all, Crusher now had the rank of captain, so a higher rank.

"Come on, at ease, don't fall into fawning ..."

Mallory relaxed a bit, and waited for Crusher to speak, out of respect.

"I listened to what you said, and what you said between the lines. You are undoubtedly part of this generation of war doctors, but I feel a very great experience in you which has made you who you are. You serve in the Delta Quadrant, don't you? "

Mallory nodded:

"Yes Madam... "

Crusher smiled at her:

"It is people like you, who work in the field, who in my opinion know the essence of our job best and who are not rewarded much. Never let yourself be tied to a desk or only when it is your choice... "

Mallory smiled back at her:

"Thank you for your advice, madam, I will keep it preciously ..."

Crusher continued:

"You're welcome, doctor. Now join your colleagues and enjoy these moments of relaxation, you know as well as I how rare they are... "

And Crusher turned on her heels, leaving Mallory taken aback but rather delighted. Did Crusher remember her? And how could she know where she was serving? Either way, she continued with a firmer step, determined to stay on her post as long as she could. Because it was what suited her, the essence of her job.

Systemic Balance

by Andy Luke

After touching down at the campus he had planned to just pop in for a moment to show his face. The symposium wasn't until the next day. Just a moment to see his old friend at work. Within a moment the data emergency threw the classroom into a frenzied state of excitement. His friend, the professor, raced along the corridor. Cadets watched at the window as two of their classmates ran with him. At the front of the lab the visitor threw up his hands.

"Please! Just take your seats," pleaded Bashir. "There's no need to evacuate!"

"Professor O'Brien said it was a data leak!"

"Yes. That's all it is," said Bashir.

"Then why would we need to evacuate?"

"Dr. Bashir, shouldn't we find a way to help?" another cadet enquired.

"Is it a risk to our grades?"

"Stop worrying Jeremy!" said the cadet beside him, and threw a paper scrunchie at him.

"Honestly, I don't know," said Bashir. "I guess it'll be fine? Anyway, Professor O' Brien has help."

"Those two? Their grades were sliding. They won't help," said someone.

"Can we go, sir?"

"No! Please! Just... just read quietly until they return," said Bashir.

"Miles said you're here for the conference on immunology," said Jeremy.

"Miles?"

"He likes us to call him that. We were to be covering biomedical nodes today," said Jeremy.

"Oh right. I... suppose I should say something about that seeing as how I'm here. I didn't come prepared, but, actually there are many interesting aspects of my work as a medical professional which are quite pertinent to the field of engineering."

"How so, sir?"

"Well, as a doctor I need a staff with access to current findings and remedies. I imagine, in General Engineering 101, you'll be learning how vital team work is. A patient relies on their doctor or nurse to treat all their ailments."

Jeremy asked, "How does this apply to us, Dr. Bashir?"

"It applies because in treatment we need system-wide support. Future officers like yourselves will be key in providing up to date information. It isn't just warp cores and lifts. In biomedical engineering you can ease someone's pain by crossing the right wires. It's incredible, isn't it?"

"Dr. Bashir?"

"Please. Call me Julian."

Bashir sat, in the middle of the Academy canteen with his conference notes on pages spread out across the table. He sipped from his piping mug of raktajino, and then squinted at the shadow on the page in front of him. A large form loomed over his words. He sensed anger.

"Bloody hell, Julian!"

"Well, hello to you too, Miles," he chirped.

"I asked you to watch the class," said O'Brien, through gritted teeth.

"Yes! And we had a fascinating discourse on prioritising treatment across the disciplines. You know, systemic balance. What's the problem?" said Bashir, cheerily.

"The problem is I got two comms from parents worried about a bloody Borg invasion! Then I speak to Cadet Jeremy, and he told me the opposite; said you discussed transplanting organic parts to machines!"

Bashir shrugged. "They asked if I served with you and Commander Data. Then one thing led to another. It was all purely speculative."

"I don't see the connection, Julian. Why, oh why, did you have to talk to them?" O'Brien said.

He sat down, but Bashir was sulking. "Oh, I see. I'm not good enough to teach your class. Is that it?"

"Aw, come on now, Julian. No-one said that. It's just... that –"

"Miles is everyone's favourite tutor. Miles takes his cadets to the pub after lectures!"

"It was only once after their exams! Goodness, settle down. The main thing is we fixed that data leak and... wait... are you jealous?"

"No," insisted Bashir, in a stropmy tone that incriminated him.

O'Brien held his tongue, and thought for a moment. He knew how to deal with Julian in one of these moods. "I missed you," he said.

"Right," said Bashir.

"Really. Sometimes I access your EMH. It's not the same though. Look, come over for dinner tonight. Keiko's grown fresh jalapeños..."

Bashir let a mighty yawn out into the dark. He couldn't make out much in the way of detail. There was a light from the moon, or the street-lamp: he couldn't be sure in his alcohol-soaked brain. Maybe there were four lights. He put a hand on the back of the park bench, and lifted himself to his feet.

O'Brien sat and chided him. "The EMH is accurate. It has your tolerance for alcohol."

"You're the one who couldn't make the bench," said Bashir.

He found O'Brien placed precariously, on his bum, with his back to the slope of a hill. Bashir reached out a hand, and then tried with both hands, and got him standing up. Grass and honeydew leaves were stuck to his thigh.

"The tavern was a long way," said O'Brien. "A long way a-way away."

"Well, you were the one insisted on a 'real' drink. We need to... to get you back to Keiko."

O'Brien brushed himself down and shook his head. "Carrying on like teenagers," he said. "We're too old for this."

"You mean you're too old for this," said Bashir.

It had felt like an expedition: the journey into the expanse of the park, elaborate with its weaving paths and tropical fauna; so they were surprised to learn the perimeter gate by which they'd entered was four minutes walk. Bashir stumbled across the road outside on his way to the stop for the night shuttle. He steadied himself on the silver metal box and pressed the call button. His friend yelled.

"Oh god! It's three o'clock! Julian. I'll catch hell. Never mind the morning..."

"Relax. I'll be fine. My paper's all..." Bashir stopped, and hiccuped. "My paper's ready."

"I'm happy for you but what about me?"

"I thought you said you'd no classes?"

"Oh yeah. But I'd something to do. I have to..."

O'Brien searched his thoughts for the facts, but they were elusive now. After a moment, he shrugged. If it was important, it would come back to him. Suddenly thunder bellowed from his stomach. He could feel Keiko's jalapeño curry, made with love, transform into a beast of enmity. He steadied himself by grabbing the metal call box, and dry heaved. Bashir rubbed his back.

"Easy now," he said. "Have you got your balance?"

"I'm fine. Two raw eggs in the morning."

The stark twin lights of the night shuttle hit them then. O'Brien recoiled as the orange glow grew in intensity. Bashir laughed.

"Maybe you should study medicine. After all, healing is the root of all learning, Professor."

"Ach, give over!"

O'Brien slept well that morning. He didn't find himself disturbed by Keiko, Molly or Julian. Their efforts to wake him so closely resembled the push

and shove of the Battle of Clontarf. King Maolmhuire O'Brien fought, steel on steel, against Sigurd and his Viking horde. In the crashing waves he dodged arrows and wrapped himself in the chain-mail he'd torn off a Norseman. It was his own snoring that almost threw him from the bed. His heart beat rapidly as he searched for his left shoe. It was beating when he teleported into the academy, in the clothes he'd slept in. He ran, and doctors, clerical staff and cadets all got out of his way. He made it to the packed out conference hall just as Bashir reached the podium. On the large screen, the physician's eyes were bloodshot, with grey bags underneath. He'd grown an un-natural amount of stubble overnight. Bashir laid out his papers on the podium, which wobbled in his hands. O'Brien cursed, silently. Some of the audience stood along the edge of the room, between O'Brien and the stage. He entered the cluster of bodies and made his apologies as he went.

"It gives me great pleasure to welcome you," said Bashir. "Sorry, sorry, this microphone doesn't seem to be on."

Bashir started tapping it: the fourth and fifth tries brought the pop-pop through the speakers.

"Welcome to the 2376 conference," he said. "Ah."

He was once more without amplification. He looked to the right, where he expected to find the sound engineers.

"Is there someone here who can help? Just bear with us, a moment."

Bashir tapped the microphone again. A squeal of feedback reverberated around the hall. He found a switch on the underside of the podium, and turned it off, and on again. The sound from the speakers was like circuits frying. O'Brien climbed onto the stage, shaking his head.

"Have you broken it?"

Bashir stepped aside. "Something you had to do this morning?" he asked.

"You know, systemic balance," muttered O'Brien as he worked.

Cadets' Corner

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Colour Me In!

