

TRASH

At one point, this figure preached on the Plains of Blood. An image of this character refused to fight to the death, and insisted on a diplomatic solution, in a test set up by the Excalibans. This man's student, T'Klaas, was one of the first masters of Kohlinar. This man's writings are found in an artifact called the (*) Kir'shara, and his soul was carried by Jonathan Archer briefly after being passed down to the leader of the Syrranites. This man propagated the idea of Infinite Diversity in Infinite Combinations during the Time of Awakening, after which those who refused his teachings split off and formed the Romulans. For 10 points, name this figure who united Vulcan and created the path of logic.

ANSWER: Surak

One of the first uses of this technology by one race was at the Battle of Caleb IV, when only a "handful of engineers" knew how it worked. After the destruction of Paragaan II, a quantum beacon was used to defeat one of these devices based on technology acquired from Daniels. Subcommander T'Rul was assigned to observe the use of one of these devices, which by the terms of the deal could only be used in the (*) Gamma Quadrant. One of these devices was Admiral Pressman used an experimental one of these devices on the USS Pegasus which also had a phasing function, leading William Riker to stage a mutiny. These devices were outlawed for Federation use by the Treaty of Algeron, but they are frequently used by the Klingons and Romulans. For 10 points, name these devices that turn starships invisible.

ANSWER: cloaking device

This man buries a dog he met earlier in the day after a bomb he plants accidentally destroys an apartment building. This man took his name after a peace-loving politician assassinated by Odin Lowe, who was also this man's father. Later trained by Dr. J, this man manages to destroy Dekim Barton's shelter in (*) Endless Waltz. At the end of the Eve Wars, this man manages to destroy a section of the space station Libra after Zechs Merquise sacrifices himself to destroy the rest. In the episode "Party Night", this character attempts to use his shield to stab Relena Peacecraft after destroying some Aries. For 10 points, name this pilot of the Wing Gundam and protagonist of Gundam wing.

ANSWER: Heero Yuy

This man, who authored a book called *The History of Allied Weaponry*, was once captured and taken to Egypt to perfect psychic dominators, which he rigged to explode. His research led to the Weather Control Device and the Prism Tower. After going back in time, Anatoly Cherdenko assassinated this man by shaking his hand at the 1927 Solvay (*) conference. For 10 points, name this physicist, who in the Command and Conquer Red Alert Universe went back in time to assassinate Hitler, presumably some time after he worked as a patent clerk in Bern, Switzerland.

ANSWER: Albert Einstein

The last mission in the Terran campaign of the original Starcraft involves protecting one of these things. In a Family Guy parody, one of these things is called the "giant boob-nipple gun". In one instance, one of these weapons in orbit was used by the Global Defense Initiative to, destroy Temple Prime, setting off a huge explosion of Tiberium. One of these things on (*) Hoth was used to scramble the electronics on Star Destroyers to allow Rebel Transports to escape. For 10 points, name these weapons that presumably fire some kind of charged particles.

ANSWER: ion cannon

When Ahsoka Tano served as a guard for the Jedi Archives, she observed this Jedi Master enter the Holocron Vault. During a mission to Vassek 3, this man's Padawan Nahdar Vebb was killed by General Grievous. With Agen Kolar, Saesee Tiin, and (*) Mace Windu, this man confronted Chancellor Palpatine in his office right before the great Jedi Purge. For 10 points, name this Nautolan, an aquatic Jedi Master with green tendrils.

ANSWER: Kit Fisto

This character's theme is sampled in the Wiz Khalifa song "Never Been". This character cloned herself to create Kid before being completely consumed by hatred. This human was fused with another creature to form the Time Devourer. A piece of jewelry owned by this figure is used to control the (*) Mammon Machine. This princess of Zeal transports the party away from Zeal Palace during the awakening of Lavos in 12,000 BC, after

which her little brother promises to search for her. For 10 points, name this sister of Magus from the Chrono game series.

ANSWER: Schala

In the side-story Casablanca Lilies, it is discovered that this character's father is a Dietman and her first love was his secretary, Kaidou. Despite not being Catholic, this character attends the Thomas Aquinas Academy for Girls. This character's attacks include throwing scrolls to immobilize enemies, and one in which she's surrounded by a (*) mandala. This character was introduced in an episode where several students disappear on board Bus number 66. This priestess at the Hikawa Shrine had the ability to see the future through fire reading. For 10 points, name this character from Sailor Moon who used fire-based attacks, and who was sometimes assisted by her crows Phobos and Deimos.

ANSWER: Sailor Mars [or Rei Hino]

This person promoted team Ajisai to Chunin after sending them to the Chunin exams to gather intel. When this character dies, a blood-stained object belonging to her floats back to her "hop-in" card; this occurs after she uses six billion explosive tags to try to kill Obito Uchiha, who survives and stabs her. She was once kidnapped by Hanzo the Salamander, setting off a chain of events that led (*) Yahiko to commit suicide. This character uses the Dance of the Shikigami technique to create wings, which is why she was called God's Angel by the residents of Amegakure. For 10 points, name this female member of the Ame Orphans, a member of Akatsuki and best friend of Pain who manipulates paper.

ANSWER: Konan

In one film, this character is given a yellow ribbon by the astronomer Kakeru Ozora, after he saves her from being hit by a car. The holder of the Violet Rainbow Crystal, Rhett Butler, had a crush on this character. Keiko Han voices this character, but in the original English dub she's voiced by Jill Frappier using a (*) British accent. When this character is first introduced, she has a bandaid covering the crescent mark on her forehead, which is removed by Usagi Tsukino after rescuing this character from a group of boys. For 10 points, name this advisor to Sailor Moon, a black cat.

ANSWER: Luna

The actor Barry Khan attempted to seduce this character after showing her photographs of her husband cheating. This character manages to break Spopovich's neck before being defeated by him in the 25th World Martial Arts Tournament. This character is discovered to be pregnant after she offers to donate her energy to her father-in-law to fight the (*) god of destruction, Beerus. This former attendee of Orange Star HS is the mother of Pan. She falls in love with her future husband after he teaches her to fly. For 10 points, name this daughter of Mr. Satan and husband of Gohan from Dragonball.

ANSWER: Videl Satan

During a fight in this city, the phone is knocked off the hook and 20 seconds later, a voice says "if you'd like to make a call, please hang up and try again", that fight is against a hermaphrodite with one nostril. One person who lives in this city is a calligraphy enthusiast whose hair is the color of strained peaches, and that figure has children named Nathaniel and Superfly with the protagonist. The Holiday Inn in this city has towels that are oh-so-fluffy. After being force-fed(*) sauerkraut by his mother until he was 26.5 years old, the protagonist wins a radio contest to get a first-class one-way ticket to this magical far-away place. For 10 points, name this city, the subject of a 12-minute song by Weird Al Yankovic.

ANSWER: Albuquerque

This character was imprisoned in Royal Detention Center 17 after Princess Seri's bodyguards captured him; after that he joins Captain T'Zirk's ship during the Styracodon-Triceraton war. Blobboid is an alternate universe version of this character. In another timeline his family is killed by Hiroto, and he becomes the title Last Ronin. In various incarnations, this character's pets include the cat Krunk and a mutant feline that has to live in the freezer named Ice Cream Kitty. This character defeats Gluh to become the champion of the (*) Battle Nexus, a position previously held by his father and master Splinter. For 10 points, name this "party dude", a nunchuk-wielding member of the Teenage Mutant Ninja Turtles.

ANSWER: Michelangelo

One of this organization's bases is located in Trans-Carpathia and called the Silent Castle. This organization was briefly headed by Fred 7, a member of the Crimson Guard. Several members of this organization used genetic engineering to create a figure who, in turn, created a splinter faction of this organization called the Coil; that figure, created from the DNA of earth's greatest (*) military leaders, was named Serpentor. Members of this organization include the master of disguise Zartan, the weapons dealer Destro, and the ninja Storm Shadow. For 10 points, name this terrorist organization led by its namesake "Commander", opposed by GI Joe.

ANSWER: Cobra

In one appearance, this object is used by the Great Fairy to knock Argorok out of the sky. On this object live a group of children playing in a Grassy Playfield, each one wearing the remains of a previously fought boss; one of those children can offer to play "good guy against bad guy" and gives the protagonist the (*) Fierce Diety mask. This object is held up by four giants after playing the Oath to Order, For 10 points, name this place that crashes into Clock Town after 72 hours, a large celestial object with a face floating above Termina in Majora's Mask.

ANSWER: the Moon from Majora's Mask

A petition by Gabe Carey sought to replace the US national anthem with this song. The singer states there's "no time for guessing/follow my plan instead", after noting that there's danger lurking around every turn. This song, originally recorded by (*) Crush 40, plays in the background of a sequence in which the protagonist escapes from GUN by snowboarding down a street. Beginning "rolling around at the speed of sound", this is, for 10 points, what song that implores "follow me/set me free", the iconic background music to the first stage of Sonic Adventure 2.

ANSWER: City Escape

This character manages to save the Metroline high-speed rail system after its sabotage. In the final game of the series he appears in, this character has a son, Patch, with longtime love interest. This character had an older twin brother who died of the heart disease HBD, named Hub. His father is kidnapped by the Crime Syndicate Nebula in one game, and in another entry he defeats the Net Mafia Gospel. He attends ACDC elementary school alongside his friends (*) Yai, Dex, and Mayl, and has a rivalry with fellow NetBattler Eugene Chaud. He is most often pitted against the World Three, or WWW, headed by Dr. Wily. For 10 points, name this operator of MeganMan.EXE, and protagonist of the Mega Man Battle Network Series.

ANSWER: Lan Hikari

This is the first word in the title of a game cancelled by Retro Studios, in which the protagonist wielded a blade named for these creatures. A group of developers from a studio named for these creators formed Human Head Studios; that studio is probably best known for developing Hexen, Heretic, and Soldier of Fortune II. One character with this name has half-brothers Jacob, Jared, and Jesse who can trigger 3 of the seven deadly sins; that character with this name is the (*) daughter of Arella Roth and the demon Trigon. For 10 points, give this name of a superhero who says "Azarath, Metrion, Zinthos!" before using her magic, a gothic member of the Teen Titans.

ANSWER: Raven

This character was placed in an escape pod by his parents as a baby to save him from a Zero Reverse event. He eventually develops a program called Fortune to avert a future genocide. This character is transported back in time by the Crimson Dragon in order to fight Paradox in the movie Bonds Beyond Time. He uses "Converging Wishes" to amplify one attack in order to defeat Sephyron the Time-Lord in a duel against Z-one. This friend of (*) Crow and adopted son of Martha grew up in the run-down Satellite district of New Domino City. He frequently plays the Stardust Dragon during Turbo Duels. For 10 points, name this rival of Jack Atlas, the protagonist of Yu-Gi-Oh 5Ds.

ANSWER: Yusei Fudo

SCIENCE

The major determinant of this condition is a poly-lysine conjugate of the inciting chemical created through haptation, which then causes a Gell-Coombs type reaction. The term de-labelling is most often used to refer to removing this condition from a patient's chart, because over 90% of the time they don't actually have it. For pregnant women with syphilis who also have this condition, this condition is treated in order to effectively treat (*) the actual syphilis. People with this condition have a 5% chance of cross-reactivity rate to cephalosporins. For 10 points, name this condition which is usually caused by IgE to a certain class of antibiotics containing a cyclic amide, the most commonly reported drug allergy.

ANSWER: **penicillin allergy** [accept cephalosporin allergy, beta-lactam allergy; prompt on less specific answers]

BONUS: While aztreonam doesn't show any cross-reactivity to penicillin allergy, it has the same side chain as this third-generation cephalosporin, which unlike cefotaxime and ceftriaxone has activity against pseudomonas.

ANSWER: **ceftazidime**

A national outcomes study of these people was partly conducted by Myles Akabas. These people are the recipients of the F30 award, which is one of several named for Ruth Kirschstein. In an offhand joke from THUNDER 2009, I noted that Dian Cecht from Irish mythology was probably one of these people.

Short-tracking is sometimes an option for these people, which usually leads to a two plus two structure. The pipeline for these people is called "long and leaky" in a JCI article by Lawrence F. Brass. Selene Koo and Tirth Patel are quizbowlers who are also these people, who usually graduate in 7 to 9 years. For 10 points, name these people trained in MSTP programs, who are supposed to work at both the bench and bedside.

ANSWER: **physician-scientists** [or **MD-PhDs**]

BONUS: NIH career development awards for postdocs are designated by this letter.

ANSWER: **K**

This virus uses its G glycoprotein to bind to heparan sulfate and CX3CR1, which may be its receptors. After parainfluenza, this virus is the second most common cause of croup, causing 6-8% of cases. Alaskan natives, premature infants born 29 weeks or younger, or those with BPD are prime candidates for prophylaxis against this agent with a drug that targets its F glycoprotein; that drug is the monoclonal antibody (*) pavilzumab.

This agent is the most common cause of a disease that characteristically presents with a shifting lung exam, called bronchiolitis. For 10 points, name this virus that causes lower respiratory tract infections in patients less than 1 year old, named for the fact that it causes cells to fuse in culture.

ANSWER: **RSV** [or **respiratory syncytial virus**]

BONUS: Severe respiratory distress in bronchiolitis can be treated using a nebulized, racemic version of this substance, which is given alongside steroids in moderate to severe croup as well.

ANSWER: **epinephrine** [or **adrenaline**]

It's not tuberous sclerosis, but one gene mutated in this disease is close to TSC2, which can result in a contiguous gene syndrome if both are deleted. The TEMPO 3 and 4 trials showed that tolvaptan prevented progression of this disease. 97% of patients with one form of this disease also have von Meyerberg complexes in the liver, and a childhood version of it is associated with hepatic fibrosis. TKV is the most important prognostic factor in this disease. Airline pilots with this disease and those with a personal or family history of intracranial bleed should be (*) screened by MR angiography for aneurysms. The proteins mutated in this disease forms a complex required for mechanosensation in primary cilia. For 10 points, name this disease with both autosomal dominant and recessive forms, in which fluid-filled structures appear in the kidney.

ANSWER: **polycystic kidney disease** [or **PKD**; accept **ADPKD**, **ARPKD**, **autosomal dominant polycystic kidney disease**, **autosomal recessive polycystic kidney disease**]

BONUS: About 20% of people with ADPKD also have this valvular defect, which is characterized by a mid-systolic click, followed by a murmur heard at the apex.

ANSWER: **mitral valve prolapse** [or **MVP**; prompt on **MR** or **mitral regurgitation**]

One FDA-approved treatment for this disease is teprotumumab, a monoclonal antibody to the IGF-1 receptor. In follow-up assessments for this disease, a decrease in excursion adds one point. A swollen caruncle adds one point to the uniquely-named Clinical Activity Score for this disease, which can also be stratified by Werner's NOSPECS classification. This disease can present with widened palpebral fissures in Dalrymple's sign. This disease is caused by increased (*) glycosaminoglycan deposition due to cytokines from activated T cells

and tonic activation of TSHR by an autoantibody, leading to proptosis, lid lag, periorbital edema, and exophthalmos. For 10 points, name this form of autoimmune hyperthyroidism.

ANSWER: **Graves** ophthalmopathy [or **Graves** orbitopathy; or **TED**; or **thyroid eye disease**; accept anything that mentions both the thyroid and eye disease, because apparently its literally called "**thyroid eye disease**"]

BONUS: You have a patient in thyroid storm, and it's a UWorld question so you can't pick more than one answer. What's the first medication you give them?

ANSWER: **propranolol** [accept any beta blocker]

This disease is strongly associated with an R183Q mutation, and is associated with a diffuse form of choroidal hemangiomas. This disease can cause episodes of transient hemiparesis and often causes early-onset glaucoma. This condition can partly be distinguished from Klippel-Trenaunay syndrome by the lack of limb overgrowth. On head imaging, this disease shows bilateral tram-track calcifications, and on MRI in particular it shows leptomeningeal angiomatosis. This disease is caused by a mosaic activating mutation in GNA11 or GNAQ. This disease presents with epilepsy and a (*) port-wine stain in the V1 distribution. For 10 points, name this neurocutaneous syndrome named for two physicians.

ANSWER: **Sturge-Weber** Syndrome

BONUS: Another neurocutaneous disorder is neurofibromatosis type 1, which commonly presents with these hamartomas in the iris

ANSWER: **Lisch** nodules

Rohith 25

Three isoforms of this protein can be separated by their differential affinity to Lens culinaris agglutinin, and its L3 isoform may be more sensitive and specific. In people with Beckwith-Wiedemann syndrome, measuring levels of this protein is a method of screening for hepatoblastoma. This protein is NOT elevated in pure seminomas, but is elevated in endodermal sinus tumors. In one application, a normal level of this protein is between 0.4 and 2.5 multiples of the median. Along with inhibin A, UE3, and hCG, this protein is part of the (*) Quad Screen. Serum levels of this protein are elevated in pregnant women with neural tube defects, and while it can't be used for screening it tends to be elevated in hepatocellular carcinoma. For 10 points, name this tumor marker.

ANSWER: **AFP** [or **alpha-fetoprotein**]

BONUS: What is the most common cause of an elevated AFP measurement in pregnancy?

ANSWER: You're using the **wrong** conception **date** [accept anything involving mistiming conception or getting the age of the fetus wrong]