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The Quest for Identity

Once upon a time there lived a yellow unknown,
That in a micro lab, had already been grown.
A young student was destined to find all the clues,
So that he could identify the potential danger in the news.

The mysterious creature, 160 he was called,
At first by a series of stains was mauled.
The simple direct stain, that one came first,
It revealed blue cocci, in grape-like clusters dispersed.

Nevertheless, the student remained vexed,
So differential stains, those came up next.
In all the stains, one thing turned out the same:
Grape-like clusters of spheres were 160's claim to fame.

In the Gram stain, the spheres turned out red,
But that was a mistake, or the student would have been dead.
As John the TA kindly told the student,
Working with Gram-negative cocci would not have been prudent.

Thus the student realized he over-colorized his slide,
With a terrible shame, he almost cried.
So the student assumed his cells would have been blue,
Blue indicates Gram-positive, it's been proven to be true [1].

Next the unknown was carefully acid-fast stained,
Blue color indicated that Carbol-fuchsin was not retained [1].
There wasn't hydroxyl-lipid mycolic acid in 160's cell walls,
And thus the student now 160 "nonacid-fast" calls [1].

The final test was the endospore stain,
The results came out, clear and plain.
Lack of blue-stained spores made it quite clear,
That endospores in the unknown would never appear [1].

With this powerful knowledge the student ended the game,
Micrococcus luteus, that was 160's real name.
Nevertheless, the student was not satisfied yet,
He had to find out, if 160 posed any threat.

He found out that the bacterium was mostly non-pathogenic,
It definitely wouldn't be causing an epidemic [2].

An oxygen-rich environment is what it needs to survive,
That's why in the human mouth, the bacterium thrives [2].

In a surprise twist, the student then learned,
The bacterium was not a villain, rather a hero, title earned.
The bacterium has the precious chemical ability,
In environmental pollutants, to induce bio-degradability [3].

The bacterium has the potential, as a bioremediator to be used,
So that unclean water and soil can both be reused [3].
And so finally, the young student closed the case,
To this day, he tells stories of our hero by the fireplace.

Literature Cited

[1] General Microbiology Laboratory Manual. Fall 2013. Lab 2: Bacterial Staining Techniques I, Lab 3: Bacterial Staining Techniques II, Lab 4: Bacterial Staining Techniques III, pp. 13-36. University of Wyoming, WY.

[2] Crane B. 2012. Micrococcus luteus. American Society for Microbiology. http://www.microbeworld.org/component/jlibrary/?view=article&id=8054

[3] Schaefer, P. Microbial genetics project: micrococcus luteus. http://pch.ccps.k12.fl.us/staff/ramos-voigtl/02BBECE4-000F70E4.3/