MICROBIAL CREDIT SCORE

MICROBIOTA HEALTH INDEX/SCORE

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ABSTRACT 1203. BANKING AND A MICROBIAL CREDIT SCORE: Educating an Aging Electorate

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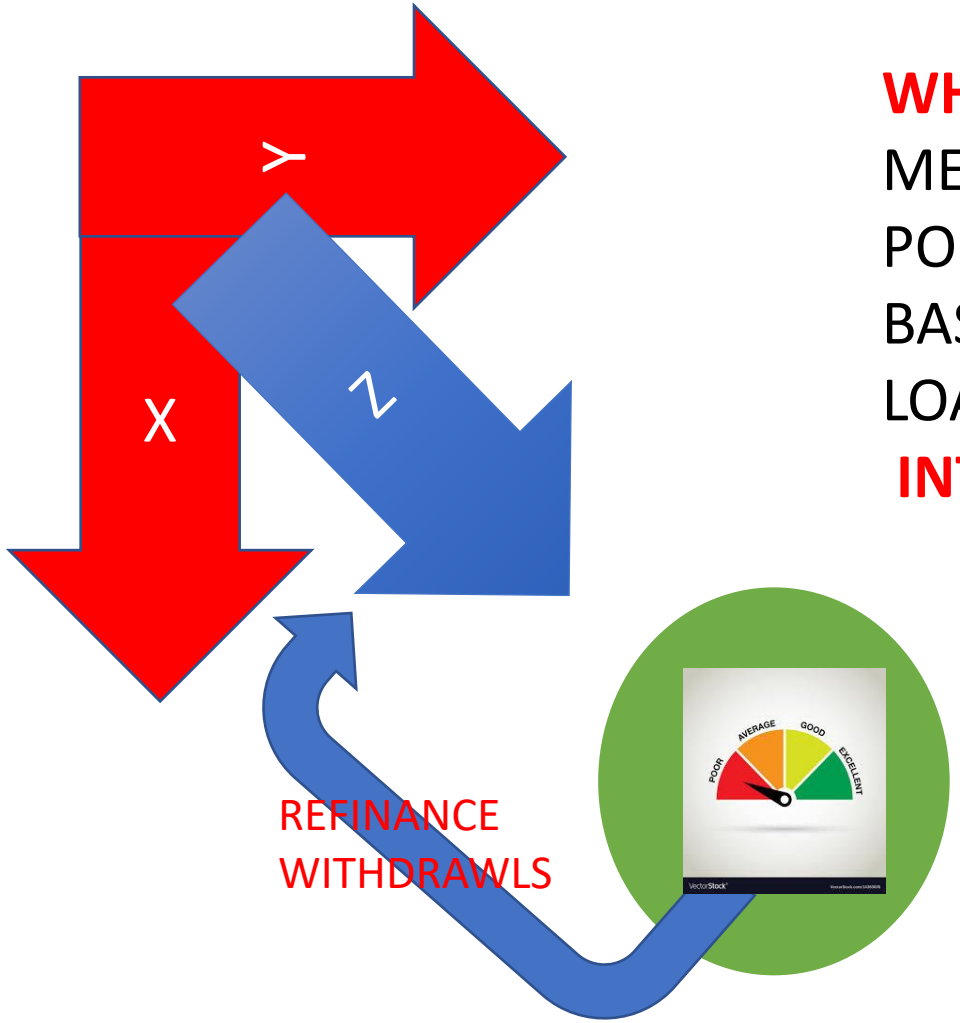


WHY??? BANKING CONTINUATION

MEASURING YOUR MICROBIAL PORTFOLIO FOR MICROBIAL LOANS BASED ON WORTH: PROBIOTICS OR "Z" LOANS, I AND II

INTERVENTIONAL MICRBIOLOGY.

GOALS: 1. TO DEVELOPE A MICROBIOLOGY TOOL WITH MULTIPLE APPLICATIONS, 2. PARALLELING BANKING STRATEGIES, 3. HIGHLIGHTING A GRADED LIFE STYLE MEDICAL HISTORY

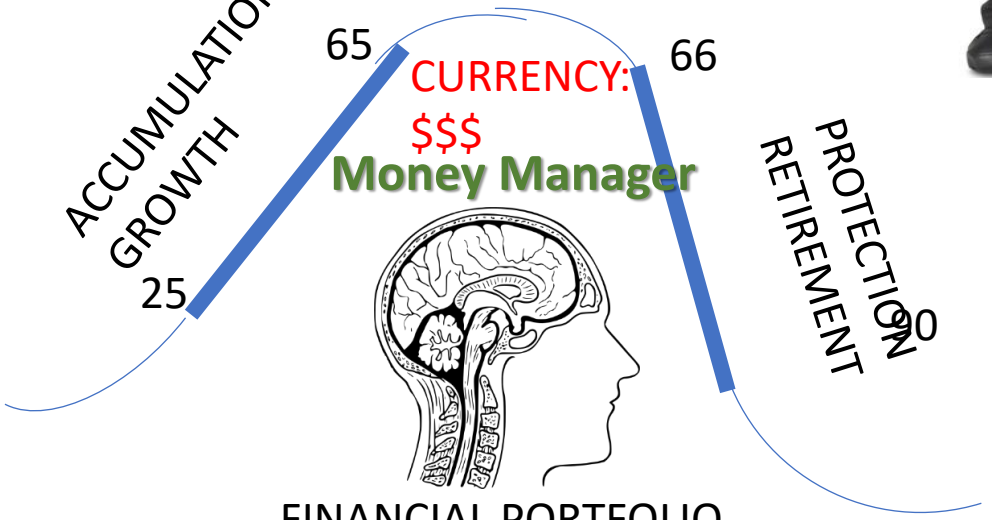
GOALS. 1. SPECIFICALLY, AS A TEACHING TOOL CALCULATE A MICROBIAL CREDIT SCORE AND 2. HISTORY: A MICROBIAL HISTOGRAM TO MEASURE LIFE STYLE IMPACT ON YOUR MICROBIOTA

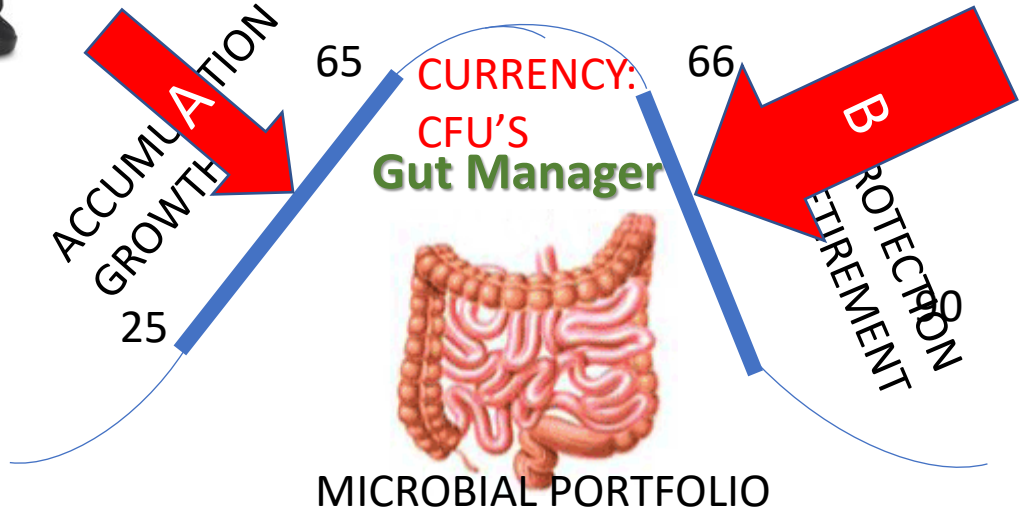
JOHN G THOMAS, PHD AND LINDA DUNLAP, BS, MBA

HOW ? CALCULATE A MICROBIAL CREDIT SCORE BASED ON IMPACT VALUES IN BOTH GROWTH (45,A) AND PROTECTION (75,B) PHASE

- Financial

- Microbial





WHAT: INSTRUCTIONS FOR CREATING A MICROBIAL CREDIT SCORE:

- EVALUATE ALL RELAVE TLIVING ACTIONS FROM THE 3 IMPACT VALUES : NUTRITION, LIFE STYLE AND HEALTH.
- SELECT POINTS PROVIDED TO EACH ACTION, RANGING FROM +/-40 (almost always),+/-30 (frequent),+/-20 (moderate), +/-10 (slight), TO 0 (almost never) .
- SUMMARIZE POINT TOTAL FOR EACH IMPACT VALUE: ALL POSITIVES, ALL NAGATIVES. CALCULATE % FOR EACH IMPACT VALUE, 30%, NUTRITION, 50% , LIFE SYLE AND 20%,HEALTH, RESPECTIVELY. SUBTRACT OR ADD FINAL NUMBER TO NEUTRAL 660, FAIR.
- COMPARE TO MICROBOLOGY CREDIT SCORE GRAPH PROVIDED AND DETERMINE COLOR CODE AND RANGE: GOOD (850-739), FAIR (780-580), BAD (600-330).
- IF APPLICABLE, CALCULATE AT 2 TIME PONTS, A AND B, AS TEACHING COMPARISON, OR TO CHANGES CREATED BY MEDICAL INTERVENTION FOR HOSPITALIZED PATIENT,C.
- WHAT CORRECTIVE ACTION AS SHORT RANGE OR LONG RANGE MICROBIAL LOAN, “Z” MIGHT BE AVAILABLE? INTERVENTIONAL MICROBIOLOGY

HOW. HEALTH LIVING ACTIONS: MICROBIOLOGY IMPACT VALUES

1. NUTRITION/ DIET (30%)

POINTS

1. GENERAL: AMERICAN,MEAT, (+1) VS SPECIAL, VEGAN (+3)
2. PROBIOTICS. SUPPLEMENTAL OR NATURAL, FERMENTED FOODS (+3,+2)
3. FIBER, SOLUBLE (+2,+1,0)
4. HYDRATION, WATER (+2,+1, 0)
5. VEGTABLES (+3) VS (-1)

POINTS

5. PROCESSED, MEATS(-2,-3)
6. FAST FOODS/DIET DRINKS (-2,-3))
7. SWEETNERS. NATURAL OR ARTIFICAL(-2)
8. SALT INTAKE (-2)

TOTAL

- POINT SCALE RANGE, MINUS OR POSITIVE: 4,40-31, 3,30-21, 2,20-11, 1,10-1. 0=0

TOTAL

HEALTH LIVING ACTIONS, MICROBIOLOGY IMPACT VALUES

2. BEHAVIOUR/LIFE STYLES (45%)

POINTS

1. WEIGHT/OBESITY (+4,3 TO -2,3)
2. PHYSICAL ACIVITY/MOVEMENT (+3 TO -3)
3. REGULAR EXERCISE (+3 TO -2)
4. ALCHOL USE (-2 T0-4)
5. DRUG USE (-2 TO -4)
6. SMOKING AND DURATION (-2 TO -4)
7. AGE (+2 to -1 TO-3)
8. NURSING HOME, ASSISTED LIVING (-1 T0 -3)

9. ACCOMADATIONS: HOME (+1), APARTMENT (-1), PETS (+1)
10. UNKNOWN. GEOGRAPHY: TEMP, WATER AVAILABILITY, DIET AND NUTRITION
11. RURAL/COUNTRY (+2) VS SUBURB (0) VS CITY (-2)

- IMPACT VALUES: MINUS OR POSITIVE. 40 T0 0 ON 10 PT. RANGE

TOTAL

HEALTH LIVING ACTIONS, MICROBIOLOGY IMPACT VALUES (25%)

3. HEALTH/HISTORY

POINTS

1. BIRTH TYPE: C/ (0) OR NATURAL (+2)
2. BREAST FEEDING (+2) VS ARTIFICAL (0)
3. ORAL HEALTH: REGULAR DENTAL VISITS(+3,+2) VS NONE (-2)
4. GUT HEALTH, GOOD (+4,+3) VS BAD. DYSBIOSIS,IBD (-2,-4)
5. FAMILY HEALTH HISTORY (+2 TO -2)

TOTAL

POINTS

6. RECENT HOSPITILAZATIONS: SURGERY, IMPLANTS (-1,-2)
7. MEDICATIONS: ANTIBIOTICS, ANTI DEPRESSANTS (- 2,-3)
8. MEDICAL HISTORY: CA AND RX (-2,-3)
9. COVID 19, REPEAT POSITIVE, LONG TERM (-2,-3)
10. NON COMMUNICABLE DISEASES AND SYNDROMES (-2,-3). NEUROLOGIC

TOTAL

- RANKING: MOST POSITIVE, UPPER LEFT, MOST NEGATIVE

CALCULATE SCORE

- CONVERT TO TEN POINT SYSTEM FOR EACH SELECTED SCALE
- TOTAL FOR EACH HEALTH LIVING ACTIONS
- CALCULATE % BASED ON INDICATED VALUES, RESPECTIVELY, OF 30, 45 AND 25%.
- ADD UP 3 NUMBERS FOR TOTAL SCORE
- COMPARE WITH COLOR CODED SCALE PROVIDED OF: GOOD, FAIR AND BAD.
- DESIGN A CORRECTIVE ACTION STRATEGY INCLUDING USE OF SHORT OR LONG TERM "LOANS" AS PROBIOTICS
- RECOGNIZE AGE OF PATIENT USING GRAPH PROVIDED COMPARING AGES OF 25, 65 AND 90.

MICROBIAL CREDIT SCORE SCALE

FINANCIAL CURENCY: $$$$$$

850

G
O
O
D

739

780

F
A
I
R

660 START
NEUTRAL

600

580

B
A
D

330

MICROBIAL CURENCY: CFUs

ACCOUNTAINABILITY

1. LONG TERM LOANS, NO END POINTS
2. INTERMEDIATE
3. SHORT TERM

LIVING ACTIONS

1. NUTRITION/DIET (30%)
2. BEHAVIOUR/LIFE STYLE (50%)
3. HEALTH (20%)

ALTERNATIVE SCORING SCHEME MICROBIOME HEALTH STATUS/SCORE/INDEX

- 5 POINT CATAGORIES. 50: 35, 20, 5, AND 0
- NON US SYSTEM OF PERCENTAGE

- 3 POINT CATAGORIES: 50, 30, AND 10

MICROBIOME HEALTH SCORE/STATUS

FINANCIAL CURENCY: $$$$$$

850
739
780
600
580
330

GOOD

FAIR

BAD

START POINT

660

50%

100 %
77%
42%
0%

23%

35%

51%

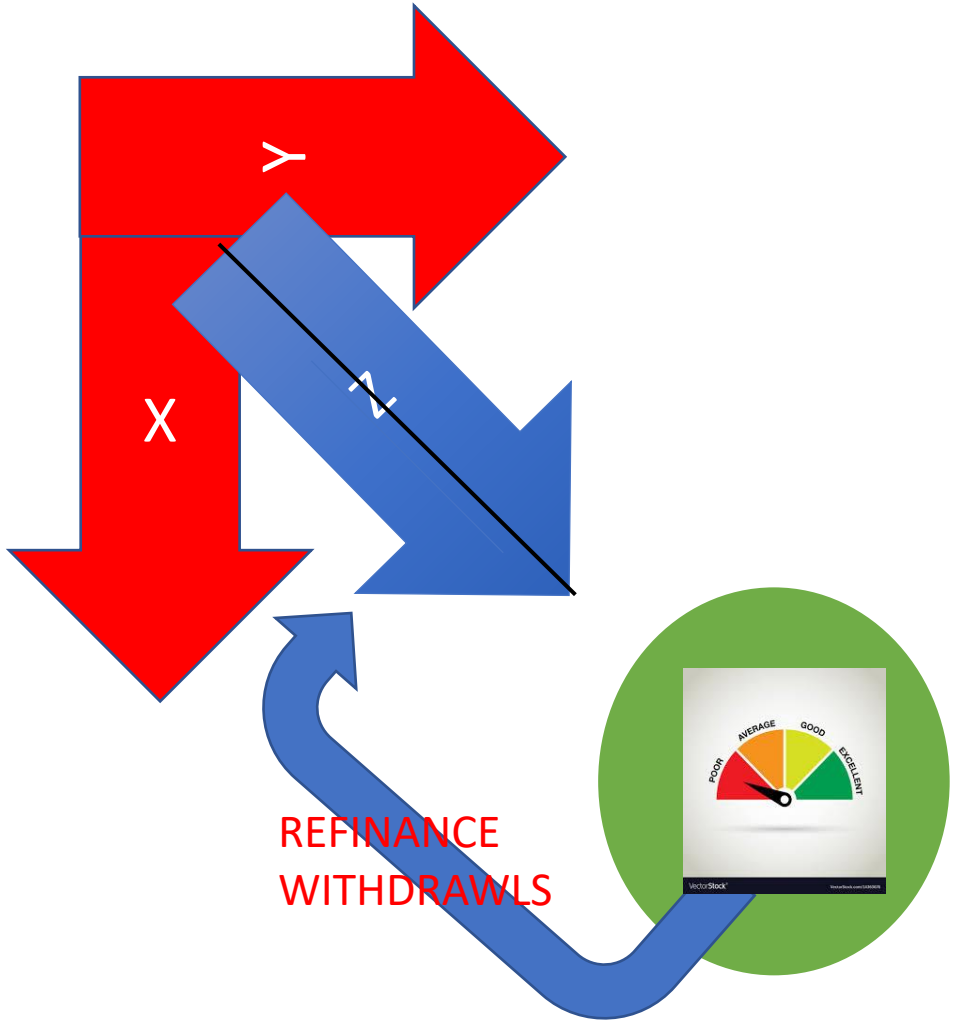
MICROBIAL CURENCY: CFUs

ACCOUNTAINABILITY

1. LONG TERM LOANS, NO END POINTS
2. INTERMEDIATE
3. SHORT TERM

LIVING ACTIONS/IMPACT VALUES

1. NUTRITION/DIET (30%)
2. BEHAVIOUR/LIFE STYLE (50%)
3. HEALTH (20%)



WHY??? CONTINUE BANKING

MEASURING YOUR MICROBIAL PORTFOLIO FOR MICROBIAL LOANS/WORTH: PROBIOTICS OR Z,I AND II **INTERVENTIONAL MICRBIOLOGY.**

CONCLUSION: 1. WE DEVELOPED A MICROBIOLOGY TOOL

2. APPLICABLE TO A VARIETY OF SCENARIOS.

3. SHARING A COMMON THEME IN BANKING

. 4.WHILE ILLUMINATING THE IMPACT OF LIFE STYLE ON YOUR MICROBIOTA

WE DID THIS, CREATING A MICROBIAL CREDIT SCORE AND WITH TIME , A MICROBIAL HISTOGRAM, TO ILLUSTRATE LIFE STYLE IMPACT ON THE MICROBIAL PORTFOLIO, A PARTNER IN WELL LIVING.

BANKING ON A MICROBIAL CREDIT SCORE: Educating an Aging Electorate. 1203

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- INTRODUCTION. Teaching microbiology to aged learners ("aged", >55yo) can be a difficult task given the unfamiliar content. Recently, this has been exacerbated via the weaponization of public health by politicians, necessitating the accurate education of this voting population.

- PURPOSE Recognizing the dynamics of an aging population (FIG I), we wanted to track aged participation in voting; this also acted as a catalyst for expanding microbial education using a successful template that highlighted "a banking theme." (REF 1) Its purpose was to provide a common tool to measure microbial health over a lifetime: the Microbial Credit Score (MCS);

- METHODS. We used US data for 5 recent presidential elections, 2000-2020, emphasizing voter registration and participation for the aged The creation of the MCS to educate the aged via "banking", was discussed with a bank manager, bank credit manager, and bank risk manager. (Acknowledgements). All supported the FICO Financial Credit Score model (FIG 3) with financial points as a comparative template for our Microbial Credit Score. (FIG 3A))

- RESULTS. The US population is aging, and characterized by an increase in voter registration and voting since 2000: up 17%. . The Microbial Credit Score model was arbitrarily divided into 3 Sections, color coded from Green to Yellow/Orange, to Red, top to bottom; this corresponded to 850-739 pts.,Good, 780-580, Fair and 600 -330 pts as Bad. For both Financial and Microbial health, we compared parallel growth curves from 25-65 yr, Accumulation and 66- 90, Protection Fig 4,5

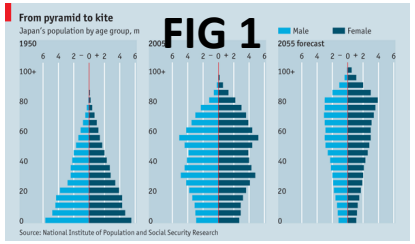

FIG 1

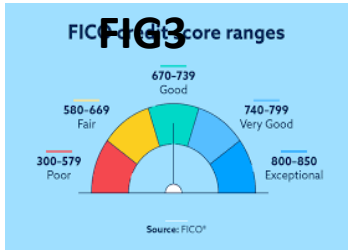

FIG3

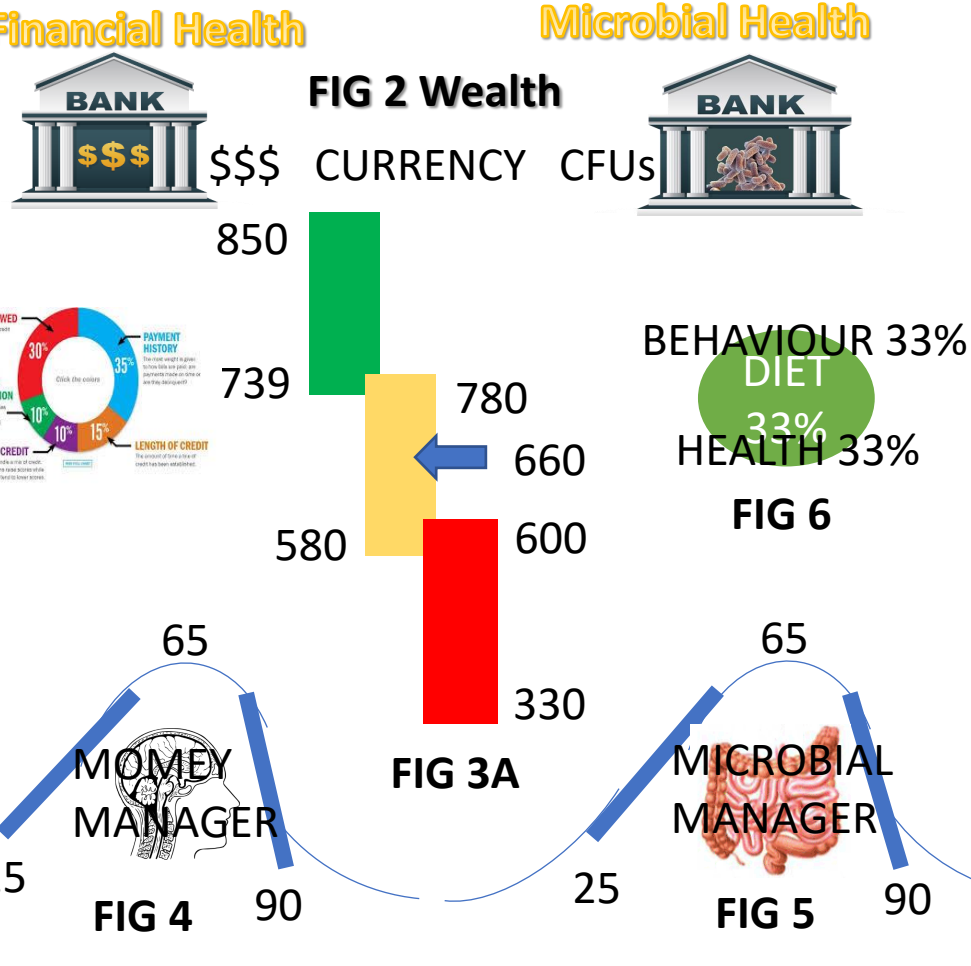

FIG 2 Wealth

FIG 3A

FIG 4

FIG 5

FIG 6

This highlighted 3 HEALTH LIVING ACTIONS, (FIG 6) ', each with ranked, scored 'Impact Values' of +/- 40,30,20, 10, and 0. These included DIET, BEHAVIOUR AND HEALTH CATAGORIES , emphasizing previous hospitalization, antibiotics, nursing home, dental care, and co-morbidities, where applicable.

Ultimately, parallel Summary Plots were created for Financial and Microbial activity, at 6-time intervals, separated by 15 years from "Accumulation" to "Protection" as Y(Score) vs X(Time), a Microbial Health Histogram; Neutral score was 660pts for FICO and MCS, the start for score calculations. (www.globalbugs.com)

CONCLUSION. Our 'Banking Theme' as an educational tool continues to expand, providing an understandable base for aged individuals not comfortable with science and at risk of misinformation. Here, we introduced a MCS, providing an active tool to compare their own microbial health to financial, using a recognized score: Good, Fair, Poor.

REFERENCES

1. Banking on Your Microbial Wealth, ASM. 2020-2022
2. www.globalbugs.com

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