



UMAYANA

Prevent & Treat Severe Wounds

for a better quality of life / to enable treatment focus



The Problem:

**#1 side effect of chemo/radiotherapy - with no effective solution
Oral Mucositis & Radiodermatitis**



Grade 3



Grade 4



Grade 3



Grade 4



Patients:
Extreme pain, Opioids
Malnutrition, Cancer progression



Practitioners:
High incidence, No solution
- 80-100% of HN Cancers
- 40% of all Cancers
Break or modify treatment



Providers:
Cost, Hospitalization
-\$37,000-\$70,000/RT patient
-\$3700/chemo cycle

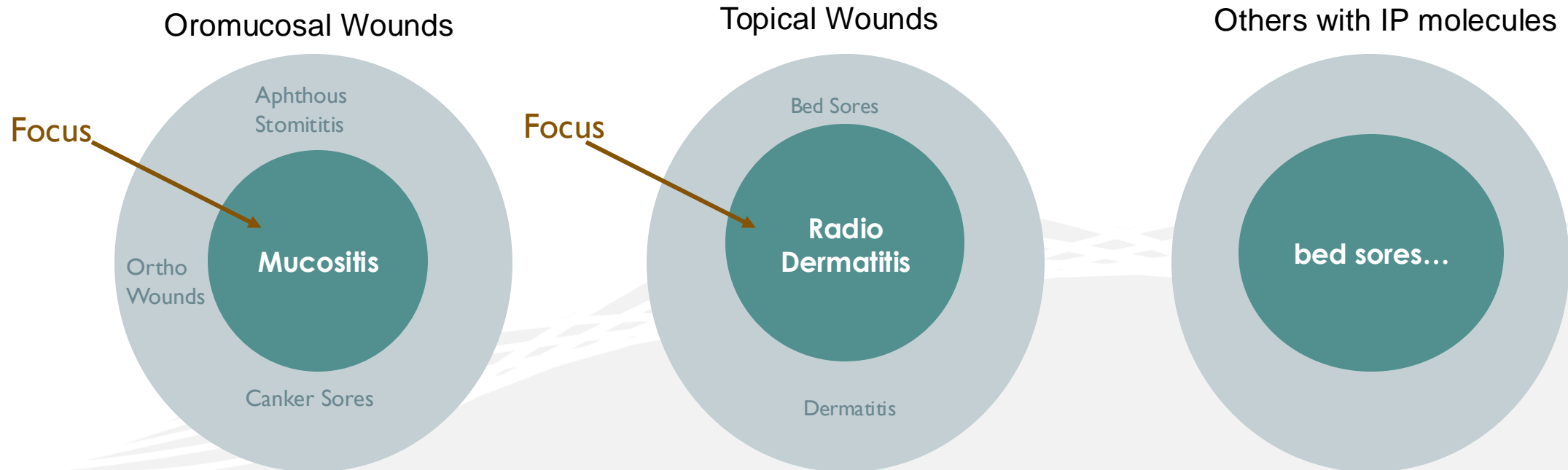
Problem Getting Bigger: Global Cancer rates are rising, up 60%

Solution:

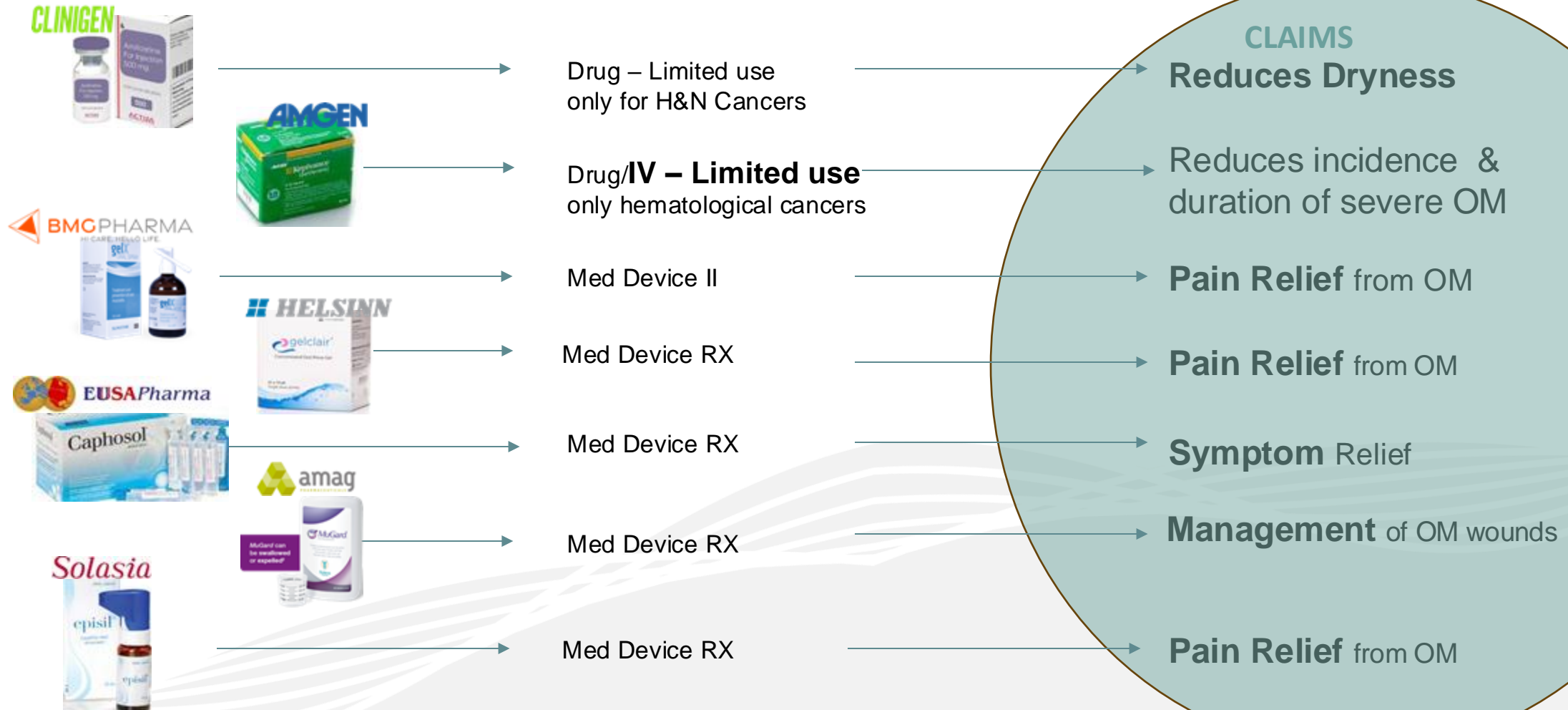
Our Patented Invention - Molecular Compound



- USPTO-EPO-TPO Patent and Trademark
- Unique wound prevention and treatment properties, clean
- Can be formulated into a variety of wound products
- Global Patent: WO2020072987 - USA Patent: 11331360 (B2)



No effective prevention or treatment for mucositis



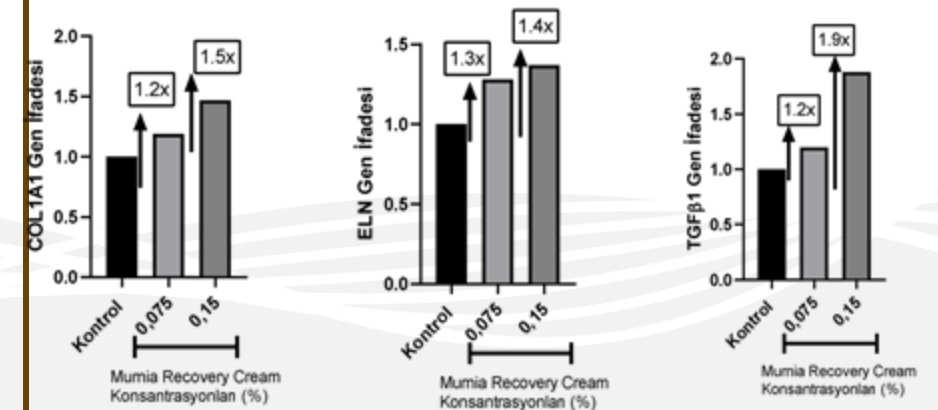
Murnia™ First/Only To Offer Prevention

- **Patented** molecular compound - **ACTIVE**
- **Proven multi-faceted mechanism of action**
with **preventative & healing** properties
- **Regenerative capability.**
- **ROS scavenging effect**
- **Anti-inflammatory & antimicrobial**
- **PH Level**
- **Clean formulations - SAFE**
- **Easy (apply 4 times a day)**



In Vitro Testing:

Antimicrobial, antifungal, analgesic.
Regenerative: Stimulates collagen & elastin synthesis at stratum basale.



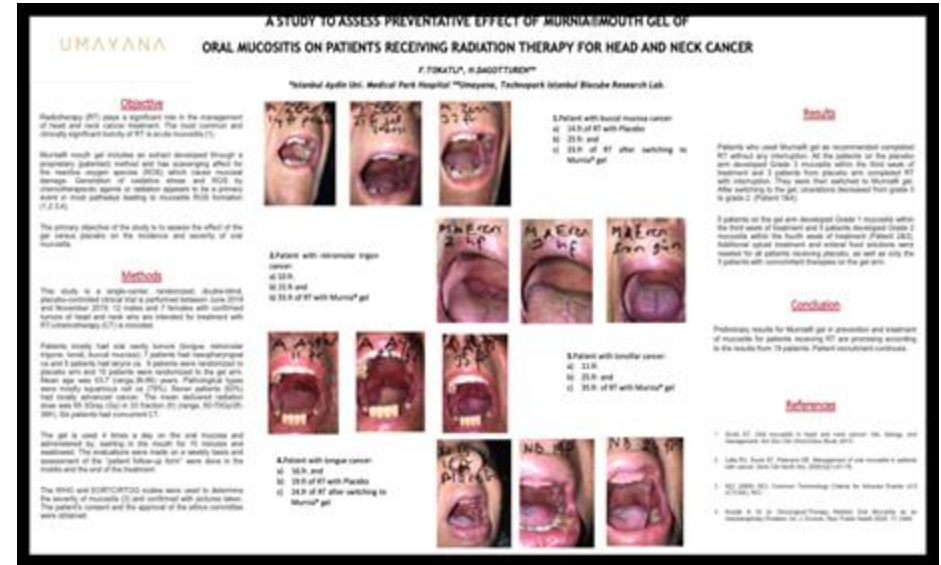
Awards & trial that shows prevention



Double Blind, Placebo Controlled Clinical Trial (H&N Cancer Patients, RT and Concomitant Therapy)

- No Grade 3 or 4 progression in Murnia cohort vs. placebo.
- No break in treatment
- No opioids. No side effects

1. I.A. of Oral Oncology, World Congress – 2019, Rome, Italy
2. MASCC/ISOO, Annual Conference – 2022, Toronto, Canada
3. International Radiation Oncology Congress -2023 Türkiye



Over 620 patient use cases–Turkey



Milestones Accomplished



UMAYANA

- ✓ R&D, Formulations, Final Products
- ✓ Patented - US/EU/TR
- ✓ Proven Product Efficacy: Trials & Use Cases in TR
- ✓ Manufacturing Scale Up
- ✓ CE Certification - Class 1- EMA
- ✓ TR - Distribution agreement

*No external Funding

Umayana Team: Innovation and R&D expertise

Hulya Dagotturen

PhD, Biochemistry
Abbot, Bayer, Yeditepe University
Board Member for ISEK (EU Health Compliance)
Member of European Innovation Council,
Women Tech EU Award




teknopark
istanbul
State of the Art Labs


HONNES
HEALTHCARE & INDUSTRIAL PRODUCTS
Manufacturing,
ISO 13485


CAPA MEDİKAL
Sales & Distribution



Gulbin Muftuoglu

GM Exec, Marketing, Innovation
Johnson & Johnson; Unilever, Nestle, Startup



Linda Deeken

Strategy Consulting, HBR
Cambridge Group, Nielsen, Startup



Fusun Tokatli Prof. Radiation
Oncology & DDS/Medical Advisor
Team



Addressing the Needs of a Conservatively €2.5 Billion and Growing Market

Mucositis/Radio Dermatitis/Xerostomia-
~\$2.5 billion

Newly Diagnosed Patients Annually:

- Head & Neck Cancer: 1.9M
- Breast Cancer: 1.8M
- Blood: 0.4M
- All other: 10M

Treatment Assumptions:

- Radiotherapy: 50% in all cases, except Head & Neck = 75%
- Mucositis, Dermatitis Rate: 40% in all cases, except Head & Neck = 90%
- 3 doses of Murnia – Pre, During and Post treatment



Total Mucositis / Dermatitis Market

- Head & Neck Cancer: €950MM
- Breast Cancer: €150MM
- Blood: €25M
- All other: €1.3B

Top Markets:

- Western Europe: €420MM
- US: €350MM
- China, India: €1.1B



Region	RT Centers	Equipment per million population
Global	7,352	1.913
North America	2,015	10.751
Mexico and Central America	120	1.167
Tropical South America	356	1.704
Temperate South America	119	2.812
Caribbean	47	1.882
Western Europe	1,077	6.923
Eastern Europe and North Asia	444	2.571
North Africa	124	1.186
Middle Africa	38	0.072
Southern Africa	65	1.384
Middle East	281	1.699
South Asia	447	0.442
East Asia	1,936	1.879
Southeast Asia	172	0.58
Southern and Western Pacific	111	6.045

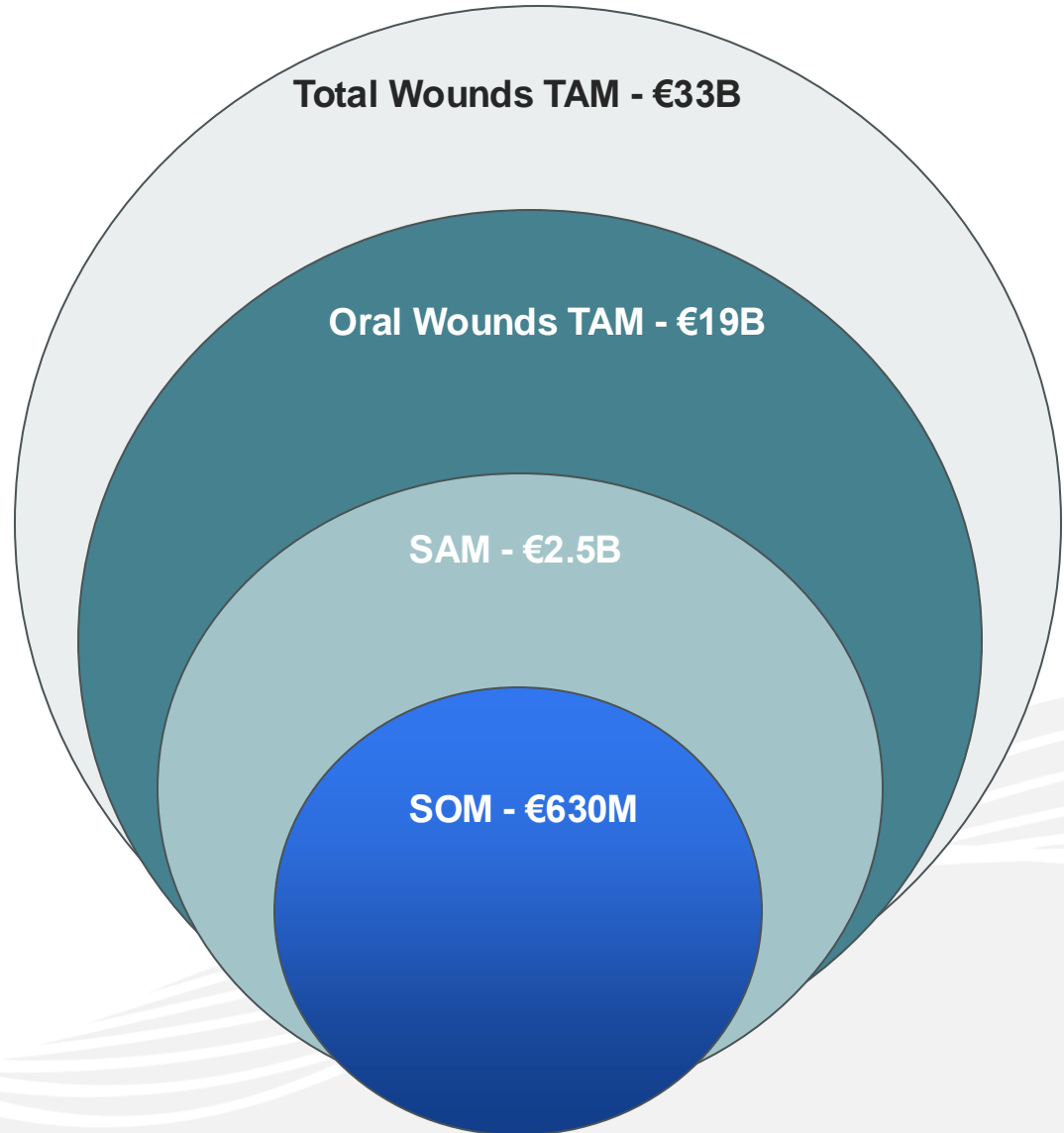
Murnia Available Market Assuming 5-30% Market Penetration Across Key Markets based on RT Center Distribution:

The Business Opportunity is Large

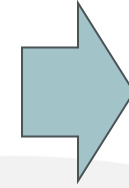


MURNIA™

UMAYANA



Total Oral Wounds



Oral mucositis + dry mouth



Targeted: geography (US, Europe),
Targeted centers. Adjusted for % adoption.

Cycle Price: €250-750 avg
Dry Mouth €50/year



MURNIA™

UMAYANA

Many Milestones Achieved

- ✓ R&D, Formulations, Patents
- ✓ CE Certification, Market Ready Products
- ✓ Market Feedback (Trials, Use Cases)
- ✓ Supply Chain/ Standardization
- ✓ Pilot and Manufacturing Scale Up
- ✓ Manufacturing, Marketing & Distribution agreement for a test market launch (Turkey)

Minimal External Funding
(<150,000). No equity funding

Next Big Milestone(s)

1. Expanded Clinical Trial (global adoption)

1. EMA - MD Class II Registration
2. Global Partnership(s)

Spending:

- Clinical trials
- CE II medical device certification
- Team and market expansion to Europe
- Strategic partnership and cooperation with the medical sector for selling our products

Need: €1.5-2.0MM, 18 months

THANK YOU

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www.murnia.com