



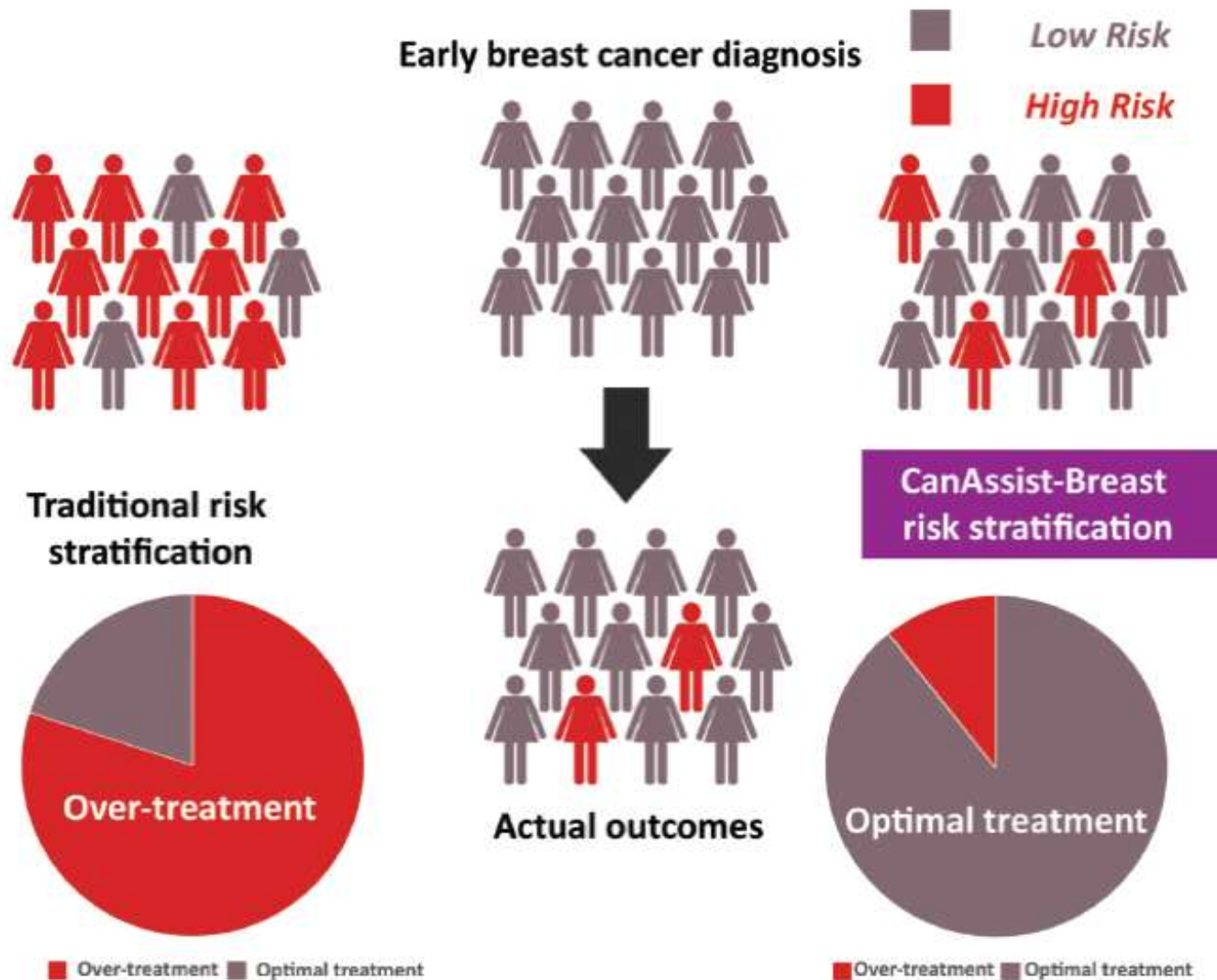
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OncoStem Diagnostics Pvt Ltd
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Start-up Biotech (Oncology Diagnostics), August 2011

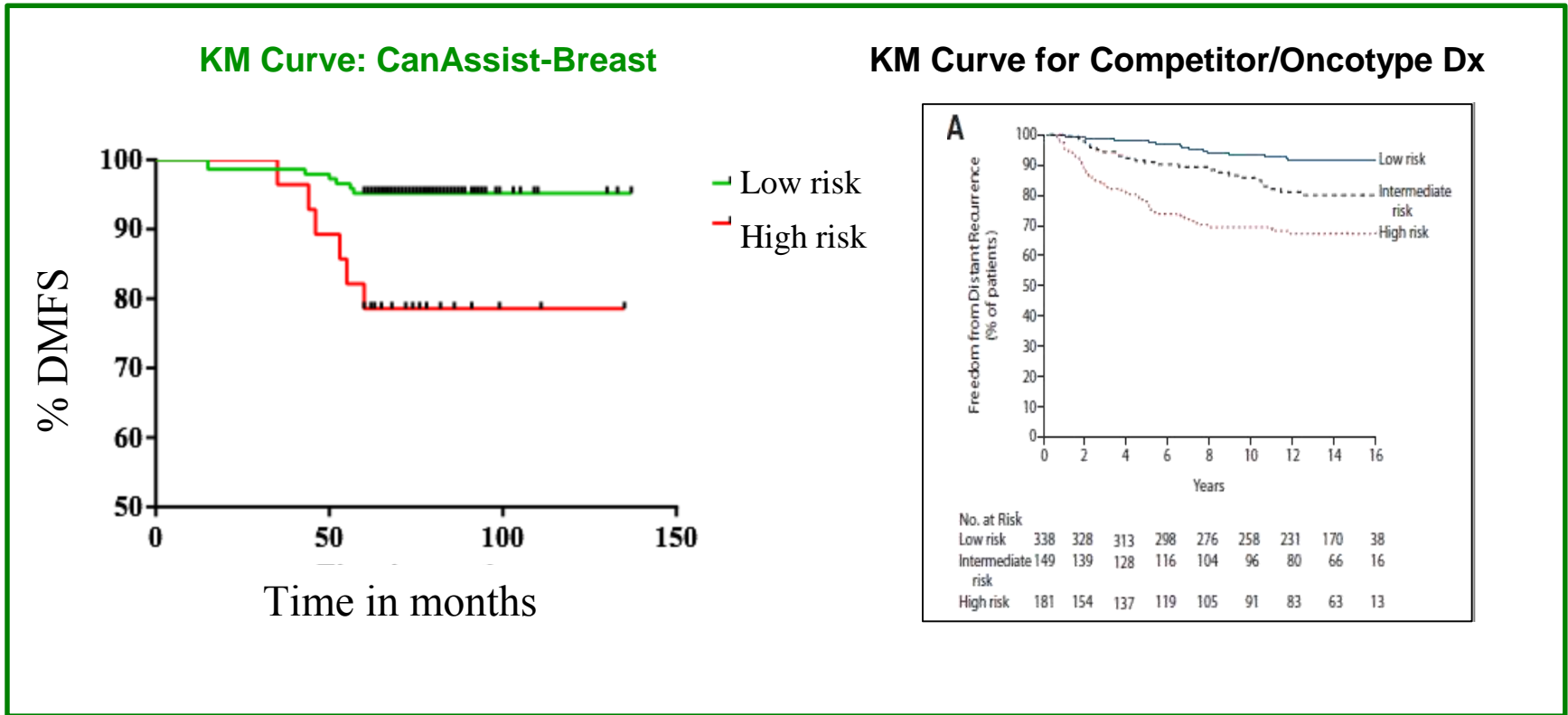
Mission: Develop and market innovative 'Prognostic and Predictive' tests which assist in redefining cancer treatment planning. First focus: Breast Cancer

Vision: Become the leading diagnostic oncology company of the twenty-first century.

- ❖ >1.5 Lakh newly diagnosed cases per year in India
- ❖ Poised to grow to >3 Lakh by 2030
- ❖ Inflicts huge tangible and intangible losses to the Individual, the family, employers and society
- ❖ Over-treatment with Chemotherapy is an important cause of Breast Cancer related mortality
- ❖ OncoStem's flagship product CanAssist-Breast: can save up to 55,000 women a year from treatment that will not benefit them
- ❖ Addresses a serious problem in Breast Cancer therapeutics that has implications globally



- Cancer recurrence is often detrimental to the patient.
 - All cancer patients: Surgery + Chemotherapy/Radiation + Targeted therapy
- However, Breast Cancer is not a very aggressive disease
 - Chemotherapy is toxic and reduces QOL and is given to 95% of patients.
 - Chemotherapy benefits <10% of patients with early stage disease.
- **Can we stratify patients based on 'risk of recurrence' & drastically reduce Chemotherapy?**
 - Yes, we can!
 - OncoStem's **CanAssist-Breast Test** is a Prognostic and Predictive test that works for all patients across Stages 1, 2 and 3A
 - Molecular tests: Oncotype Dx, Mammaprint : Expensive and 20% coverage



CanAssist-Breast separates Low and high risk patients distinctly!
Has no intermediate zone thus treatment planning is done for each case!

Intermediate zone of **Oncotype** has **67%** patients.

CanAssist Breast vs Competing Solutions

	Oncotype Dx	Mammaprint	Prosigna	CanAssist-Breast
Service Provider	Genomic Health	Agendia	Nanostring	OncoStem Diagnostics
COVERAGE	ER+/PR+/Her2-, Lymph Node -ve, Stage I <i>(20% of all breast cancer cases)</i>			ER+/PR+/Her2 - ; LN-/+, Stage 1, 2 and 3A <i>(77% of all breast cancer cases)</i>
Outcome	Chemo Predictive	Prognostic	Prognostic	Chemo and targeted drug predictive
Method	RT-PCR	Microarray	RT-PCR	Morphometric IHC
# of Genes	21	70	58	5 biomarkers and Tumor Size, Grade and Node status
TAT/Speed	21 Days	21 Days	21 days	10 Days
Regulatory Approvals	ASCO, NCCN approved	FDA 510(K), CE mark	FDA 510(K), CE mark	ISO 13485 and 15189 done CE mark obtained
Price	3L	3L	2.5L	45,000

Patient 1

Age: 31 years, recently married and is planning to have children.

Diagnosis: ER+/Her2-/Grade II/Node -ve IDC of breast, Stage 2

Std treatment: Surgery +Chemotherapy+ Radiation therapy+ Hormonal Therapy

Concern: Could affect on child bearing.

CanAssist-Breast Risk of Recurrence: **7%**

CanAssist-Breast classified her as “Low risk” and can forgo Chemotherapy.

Patient’s treatment planned accordingly.

Patient 2

Age: 72 years, post-menopausal lady.

Diagnosis: ER+/Her2-/Grade II/Node +ve IDC of breast, Stage 2

Std Treatment: Surgery +Chemotherapy+ Hormone Therapy

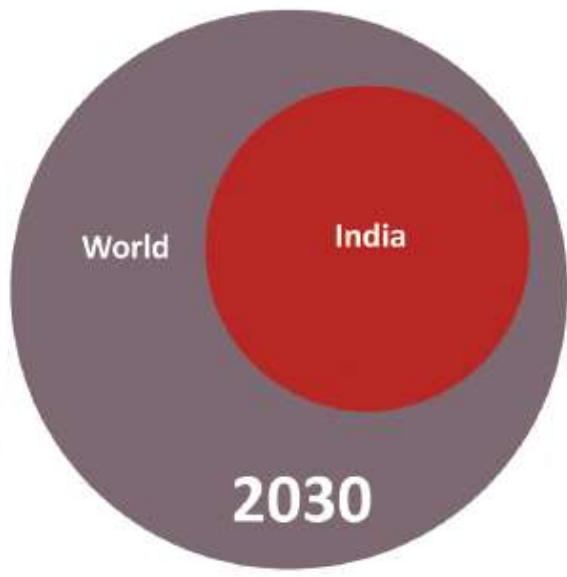
Concern: Chemotherapy and side effects as an elderly patient

CanAssist-Breast Risk of Recurrence: **4%**

CanAssist-Breast classified her as “Low risk” and can forgo Chemotherapy.

Patient’s treatment planned accordingly

20 Lakh/yr cases worldwide
1.5 Lakh/yr cases in India



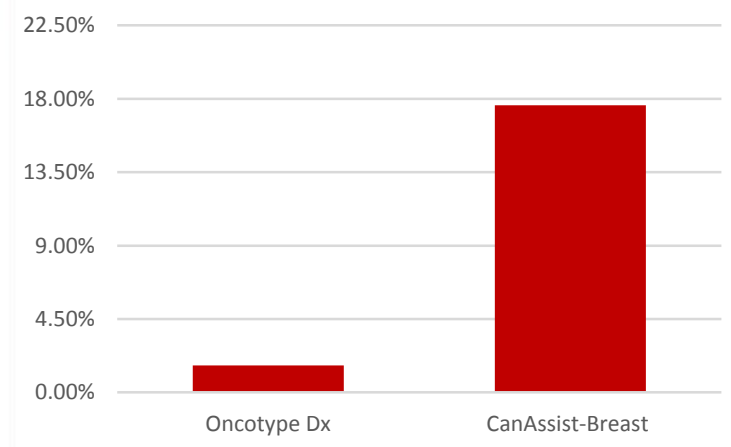
32 Lakh/yr cases worldwide
3 Lakh/yr cases in India

55,000 cases can be spared chemotherapy in India

1.1 Lakh cases can be spared chemotherapy in India

Overall cost of breast cancer management in India can potentially be reduced by 3000 crore rupees per year

Overall % treatment cost saved



CanAssist-Breast can save up to 18% of treatment costs compared with <2% for Western competitors

- ❖ CanAssist-Breast saves up to 20% direct treatment costs by sparing chemotherapy
 - ❖ Sparing chemotherapy improves patient's QOL and avoids toxic side-effects associated with chemotherapy
 - ❖ Reduces Indirect costs associated with the burden of Cancer such as:
 - ❖ lost wages and productivity,
 - ❖ Implications for the care-giver and the family
 - ❖ Treatment-related travel expenses maybe avoided
- ❖ Studies in the West have shown an improvement in QALYs when a prognostic test is used to make treatment decisions in Breast Cancer
- ❖ We are conducting such studies in India as well

- ❖ Empanel the test in Central and State Government Health insurance schemes (Vajpayee Arogyashree, Yashaswini, CGHS etc.)
 - ❖ Enabling poorer sections of society to benefit from the test
 - ❖ Spread awareness about Breast Cancer and the test to rural and semi-rural areas
- ❖ Leverage the test in Government hospitals
- ❖ Deepen partnership to develop new tests
- ❖ Personalized medicine is the future!

THANK YOU!

For more information please contact:
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