Welcome & Introductions

Multiple Myeloma and the Immune System

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Mayo Clinic Distinguished Investigator
Chair, Department of Medicine
Scottsdale, AZ

Thursday, November 12, 2015
Disclosure

Rafael Fonseca, MD, has affiliations with Amgen, Applied Biosystems, Bayer, Binding Site, Bristol-Myers Squibb, Celgene, Eli Lilly and Company, Millennium, Novartis, Onyx (Consulting); Cylene, Onyx (Research).

Multiple Myeloma

- 24050 new cases in 2014
  - 11,090 deaths
- African Americans 2X
- Median age 66 years
  - Age <50 years: 10%
  - Age <40 years: 2%

Cancer Facts and Figures 2014. American Cancer Society
Plasma cells and Immunity

Antibodies

Heavy Chains
- Alpha - IgA
- Gamma - IgG
- Mu - IgM
- Delta - IgD
- Epsilon - IgE

Light Chains
- Kappa
- Lambda
Importance of progression events

Renal Metabolism of FLCs
Bone Lytic Lesions

Sensitivity of methods for detection of FLCs

Light chain concentration (mg/L)

Normal range in serum

- SPE
- CZE
- IFE
- Total κ & λ
- FLC
- UPE
Progression of the Disease

- MGUS
- Smoldering MM
- Active MM
- Extramedullary MM
- Cell line

Clonal cells

> 10%

End organ damage

BM independence

Importance of progression events

Can you predict progression to MM in some patients with “benign” disease?

IMWG: About 80% risk of progression in 2 years would be acceptable

Rajkumar et al Lancet Oncology 2014
Importance of progression events

- Extreme plasmacytosis
- Abnormal sFLC ratio of more than 100
- More than one focal lesion in MRI

*Rajkumar et al Lancet Oncology 2014*

Prevalence of MGUS

- Age 50 3.2%
- Age 75 5.3%
- Age 85 7.5%

Two fold more common
African Americans
Relatives

General Principles

- Critical to differentiate IgM from Non-IgM
- Low-risk MGUS (M ≤ 1.5 g/dL, IgG, and normal sFLC 5 percent over 20 years)
- All others yearly with MM markers and CBC, CMP.
- Red Flags
  - Bone pain
  - Fatigue/generalized weakness
  - Constitutional "B" symptoms
  - Neurologic symptoms
  - Bleeding
  - Amyloid symptoms
  - Abnormal labs

Smoldering Myeloma


10%
3%
1%
Multiple Myeloma Treatment Lines

Induction
- IMID: Thal-Len
- Proteosome Inhibitor: Bor-Car
- Steroids: Dex-Pred
- Alkylator: Cyclo-Mel
- Anthracycline: LipoDox-Dox

Consolidation
- Observation
- IMID: Thal, Len
- Proteosome Inh: Bor
- Steroids: Dex-Pred

Maintenance
- IMID: Thal-Len-Pom
- Proteosome Inh: Bor-Car
- Steroids: Dex-Pred
- Alkylators: Mel-Cy-Benda

Rescue
- SCT
- Observation
- IMID: Thal, Len
- Proteosome Inh: Bor
- Steroids: Dex-Pred

*Transplant eligible patients.
Bor = bortezomib; Dex = dexamethasone; Dox = doxorubicin; Thal = thalidomide; Len = lenalidomide;
SCT = stem-cell transplant; Pred = prednisone; LipoDox = liposomal doxorubicin.
NCCN, 2013.

mSMART SCT Eligible

<table>
<thead>
<tr>
<th>Standard-Risk</th>
<th>Intermediate-Risk</th>
<th>High-Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trisomies only</strong></td>
<td><strong>T(11;14), t(6;14), Trisomies + IgH</strong></td>
<td><strong>Del 17p, t(14;16), t(14;20)</strong></td>
</tr>
<tr>
<td>4 cycles of Rd⁹</td>
<td>4 cycles CyBorD</td>
<td>4 cycles of VRd</td>
</tr>
<tr>
<td>Collect Stem Cells⁹</td>
<td>Autologous stem cell transplant</td>
<td>Autologous stem cell transplant, especially if not in CR</td>
</tr>
<tr>
<td>Continue Rd⁹</td>
<td>Bor based therapy for minimum of 1 year</td>
<td>Bor or CyBorD for minimum of 1 year</td>
</tr>
</tbody>
</table>

⁹ Bortezomib containing regimen preferred if renal failure or if rapid response needed
⁹⁹ If agra >5% or > 4 cycles of Rd Consider G-CSF plus cytoxan or plerixafor
⁹² Continuing Rd for patients responding to Rd and with low toxicities; Dex is usually discontinued after first year
⁹³ Consider risks and benefits; if used, consider limited duration 12-24 months

Long Term Outcomes after SCT in MM

Long-term prognostic significance of response in multiple myeloma after stem cell transplantation

Joaquín Martínez-López, 1 Joaquin Bladé, 2 María-Victoria Mateo, 2 Carlos Grande, 3 Adrián Alegre, 4 José García-Larrea, 4 Anna Sureda, 5 Javier de la Rubia, 6 Eulogio Concejo, 1 Rafael Martínez, 1 Felipe de Arriba, 7 Ana C. Viguera, 7 1 2 Jean Besabich, 1 10 Rafael Cabrera, 10 José D. González-San Miguel, 14 José Luis Guzmán-Zamudio, 22 22 22 Macarena Gomez del Castillo, 1 José M. Morales, 16 Juan C. García Ruiz, 17 Jesús San Miguel, 18 and Juan José Lahuent, 1 for the GEM (Grupo Español de MM) and PETHEMA (Programa para el Estudio de la Terapéutica en Hemopatía Maligna) Cooperative Study Groups

1 Hospital Universitario 2 de Octubre, Madrid, Spain; 2 Hospital Clinic, Institut d’Investigaciones Biomèdiques August Pi i Sunyer (IDIBAPS), Barcelona, Spain; 3 Hospital Universitario de Salamanca, Centro de Investigación del Cáncer (CIBER Oncológico, CIBERONC), Salamanca, Spain; 4 Hospital Universitario de la Princesa, Madrid, Spain; 5 Hospital Universitario Marqués y Cayetano, Madrid, Spain; 6 Hospital de la Santa Creu i Sant Pau, Barcelona, Spain; 7 Hospital La Princesa, Madrid, Spain; 8 Hospital Universitario de Valencia, Buniat, Spain; 9 Hospital Clínico San Carlos, Madrid, Spain; 10 Hospital Morales Meseguer, Murcia, Spain; 11 Hospital de Navarra, Navarra, Spain; 12 Hospital San Juan de la Reina, Department of Haematology, Paiña de Matapica, Spain; 13 Clínica Puerta del Hierro, Madrid, Spain; 14 Hospital Insular de Las Palmas, Las Palmas, Spain; 15 Hospital General Universitario de la Ribera, Cabeza, Spain; 16 Hospital Virgen de la Arrixaca, University of Murcia, Murcia, Spain; and 17 Hospital de Cruces, Bilbao, Spain

Martínez-Lopez et al Blood. 2011;118(3):529-534

CR vs nCR/VGPR/PR vs less

$P = .00001$

Martínez-Lopez et al Blood. 2011;118(3):529-534
**Dexamethasone**

![Dexamethasone structure]

**IMIDs**

- Thalidomide
- Lenalidomide
- Pomalidomide
Pomalidomide (CC4047) Plus Low-Dose Dexamethasone As Therapy for Relapsed Multiple Myeloma


Fig 1. Each bar represents the percent change in the measurable parameter, whether serum, urine, or bone marrow as a percent change from baseline at 12 weeks.

MAYO CLINIC

Pomalidomide in MM
IMIDs and Vaccinations

Mechanisms of Action: Proteasomal Inhibition

- The proteasome is required for protein turnover & maintaining cellular homeostasis\(^1\,^2\)

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Proteasome Inhibitors

Bortezomib (reversible)
Carfilzomib (irreversible)
ONX 0912
MLN9708 (reversible)

NPI-0052 (irreversible)

Bortezomib and Carfilzomib

- **Bortezomib**
  - 3/25/2005 Rx of patients with MM who have received at least one prior therapy
  - 6/23/2008, approved for initial Rx of the disease

- **Carfilzomib**
  - 7/20/2012 Rx of patients with multiple myeloma who have received at least two prior therapies

APEX Clinical Trial


Transplant Outcomes

Reeder et al, Leukemia 2009, 23:1337-41
### Single-Agent Carfilzomib: Heavily Pretreated Patient Population

#### Baseline Parameter

<table>
<thead>
<tr>
<th>Prior lines of therapy, median (range)</th>
<th>(N=266)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 (1–20)</td>
<td></td>
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</tbody>
</table>

- ≥4 prior lines of therapy, %
  - 82%

<table>
<thead>
<tr>
<th>Prior agents, median (range)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 (3–45)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Progressive disease (PD) at study entry, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
</tr>
</tbody>
</table>

- Prior lines of therapy, median (range)
  - ≥4 prior lines of therapy, %
    - 82%

- Prior agents, median (range)
  - 13 (3–45)

- Progressive disease (PD) at study entry, %
  - 100%

<table>
<thead>
<tr>
<th>Refractory to last line of therapy, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
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</tbody>
</table>

- PD on therapy
  - 95%

- PD within 60 days
  - 14%

- ≤25% response
  - 6%

<table>
<thead>
<tr>
<th>Prior agents, %</th>
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<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Bortezomib</td>
</tr>
<tr>
<td>IMiD</td>
</tr>
<tr>
<td>Lenalidomide</td>
</tr>
<tr>
<td>Thalidomide</td>
</tr>
<tr>
<td>Pomalidomide</td>
</tr>
</tbody>
</table>

- Bortezomib
  - 99.6%

- IMiD
  - 100%

- Lenalidomide
  - 94%

- Thalidomide
  - 75%

- Pomalidomide
  - 3%

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### Single-Agent Carfilzomib: Response Rates

<table>
<thead>
<tr>
<th>Percentage of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR* (n=1)</td>
</tr>
<tr>
<td>VGPR (n=13)</td>
</tr>
<tr>
<td>PR (n=47)</td>
</tr>
<tr>
<td>MR (n=34)</td>
</tr>
<tr>
<td>SD (n=81)</td>
</tr>
<tr>
<td>PD (n=69)</td>
</tr>
</tbody>
</table>

- CR* = complete response
- VGPR = very good partial response
- PR = partial response
- MR = minor response
- SD = stable disease
- PD = progressive disease

- ORR = 24%
- CBR = 37%
- DCR = 69%

- TTR: 1.9 mo (≥PR) and 1.0 mo (≥MR)
- DOR: 7.8 mo (≥PR) and 8.3 mo (≥MR)

- N = 257 response-evaluable population

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**Subset analyses of higher risk populations showed similar response rates**

(e.g., unfavorable cytogenetics, baseline peripheral neuropathy)

**Proteasome Inhibitors - Zoster**

*Analysis of Herpes Zoster Events Among Bortezomib-Treated Patients in the Phase III APEX Study*

Ashar Chaman Khan, Pietro Sonneveld, Michael W. Schuster, Edward A. Stadtmauer, Thierry Facon, Jean-Luc Harousseau, Dima Ben-Yehuda, Sagar Lonial, Hartmut Goldschmidt, Donna Roca, Rachel Neuwerk, Kenneth C. Anderson, and Paul G. Richardson

**ASPIRE Study Design**

**28-day cycles**

**KRd**
- Carfilzomib 27 mg/m² IV (10 min)
- Days 1, 2, 8, 9, 15, 16 (20 mg/m² days 1, 2, cycle 1 only)
- Lenalidomide 25 mg Days 1–21
- Dexamethasone 40 mg Days 1, 8, 15, 22

After cycle 12, carfilzomib given on days 1, 2, 15, 16
After cycle 18, carfilzomib discontinued

**Rd**
- Lenalidomide 25 mg Days 1–21
- Dexamethasone 40 mg Days 1, 8, 15, 22
Primary Endpoint: Progression-Free Survival

**ITT Population (N=792)**

<table>
<thead>
<tr>
<th>Months Since Randomization</th>
<th>KRd (n=396)</th>
<th>Rd (n=396)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>26.3</td>
<td>17.6</td>
</tr>
<tr>
<td>Median PFS, mo</td>
<td>HR (KRd/Rd) (95% CI)</td>
<td>P value (one-sided)</td>
</tr>
<tr>
<td></td>
<td>0.69 (0.57–0.83)</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>

- KRd: 396
- Rd: 396

Proportion Surviving Without Progression

Secondary Endpoints: Response

- **sCR**
  - KRd: 14.1%
  - Rd: 4.3%
  - P < .0001

**Percentage of Patients**

- **≥CR**: KRd 31.8, Rd 9.3, P < .0001
- **≥VGPR**: KRd 40.4, Rd 69.9, P < .0001
- **ORR (≥PR)**: KRd 68.7, Rd 87.1, P < .0001

*Median duration of response was 28.6 months in the KRd group and 21.2 months in the Rd group*
### Adverse Events (AEs), Treatment Discontinuations, and Deaths

**Safety Population (n=781)**

<table>
<thead>
<tr>
<th>Category</th>
<th>KRd (n=392)</th>
<th>Rd (n=389)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median treatment duration, weeks (range)</td>
<td>88.0</td>
<td>57.0</td>
</tr>
<tr>
<td>Any AE, %</td>
<td>96.9</td>
<td>97.2</td>
</tr>
<tr>
<td>Grade ≥3 treatment-emergent AE</td>
<td>83.7</td>
<td>80.7</td>
</tr>
<tr>
<td>Treatment discontinuations, %</td>
<td>69.9</td>
<td>77.9</td>
</tr>
<tr>
<td>Discontinuation due to disease progression</td>
<td>39.8</td>
<td>50.1</td>
</tr>
<tr>
<td>Discontinuation due to AE</td>
<td>15.3</td>
<td>17.7</td>
</tr>
<tr>
<td>Serious AE, %</td>
<td>59.7</td>
<td>53.7</td>
</tr>
<tr>
<td>Deaths within 30 days of last dose, %</td>
<td>7.7</td>
<td>8.5</td>
</tr>
<tr>
<td>Deaths due to disease progression</td>
<td>0.5</td>
<td>1.3</td>
</tr>
<tr>
<td>Deaths due to AEs</td>
<td>6.9</td>
<td>6.9</td>
</tr>
</tbody>
</table>

### Other AEs of Interest

**Safety Population (n=781)**

<table>
<thead>
<tr>
<th>AE, %</th>
<th>KRd (n=392)</th>
<th>Rd (n=389)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dyspnea</td>
<td>19.4</td>
<td>14.9</td>
</tr>
<tr>
<td>Peripheral neuropathy*</td>
<td>17.1</td>
<td>17.0</td>
</tr>
<tr>
<td>Hypertension</td>
<td>14.3</td>
<td>6.9</td>
</tr>
<tr>
<td>Acute renal failure*</td>
<td>8.4</td>
<td>7.2</td>
</tr>
<tr>
<td>Cardiac failure*</td>
<td>6.4</td>
<td>4.1</td>
</tr>
<tr>
<td>Deep vein thrombosis</td>
<td>6.6</td>
<td>3.9</td>
</tr>
<tr>
<td>Ischemic heart disease*</td>
<td>5.9</td>
<td>4.6</td>
</tr>
<tr>
<td>Pulmonary embolism</td>
<td>3.6</td>
<td>2.3</td>
</tr>
<tr>
<td>Second primary malignancy*</td>
<td>2.8</td>
<td>3.3</td>
</tr>
</tbody>
</table>

*Grouped term.
A phase 1/2 study of carfilzomib in combination with lenalidomide and low-dose dexamethasone as a frontline treatment for multiple myeloma

Andrzej J. Jakubowiak,1,2 Dominik Dyfid,2,3 Kent A. Griffith,2 Daniel Lebovics,2 David H. Vesole,4 Sundeep Jagannath,3 Ammar Al-Zoubi,2,5 Tara Anderson,2 Brian Nordgren,2 Kristen Dettwiler-Short,7 Keith Stockler-Goldstein,2 Ana Ahmed,6 Terri Jobst,2 Diane E. Dunock,2 Kathryn McDonnell,1 Melissa Metzler1, Daniel Couriel,2 Mark Kaminski,2 and Ravi J V

University of Chicago, Chicago, IL, 1University of Michigan Comprehensive Cancer Center, Ann Arbor, MI, 2Pusan University of Medical Sciences, Pusan, Korea, 3The John Thunier Cancer Center at Hackensack UMC Hackensack, NJ, 4Mount Sinai Medical Center, New York, NY, and 5Washington University School of Medicine, St Louis, MO

• 53 patients (36 in Phase 2 portion)
• After a median 12 cycles 62% CR
  • 42% sCR
• Quality of response improves over time
  • 36 patients completing 8 or more cycles
    • 78% at least nCR
    • 61% sCR


Abstract 538 and Abstract 3220
Carfilzomib, Lenalidomide, dexamethasone (CRd)

<table>
<thead>
<tr>
<th>Response</th>
<th>2 cycles n/N (%)</th>
<th>8 cycles n/N (%)</th>
<th>*Best response n/N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORR (≥PR)</td>
<td>42/43 (98)</td>
<td>32/33 (97)</td>
<td>42/43 (98)</td>
</tr>
<tr>
<td>≥VGPR</td>
<td>22/43 (51)</td>
<td>20/33 (60)</td>
<td>22/43 (51)</td>
</tr>
<tr>
<td>nCR/CR/sCR</td>
<td>7/43 (16)</td>
<td>24/33 (73)</td>
<td>20/43 (47)</td>
</tr>
<tr>
<td>CR/sCR</td>
<td>3/43 (7)</td>
<td>14/33 (42)</td>
<td>22/43 (51)</td>
</tr>
<tr>
<td>VGPR</td>
<td>15/43 (35)</td>
<td>6/33 (18)</td>
<td>9/43 (21)</td>
</tr>
<tr>
<td>PR</td>
<td>20/43 (47)</td>
<td>2/33 (6)</td>
<td>4/43 (9)</td>
</tr>
<tr>
<td>SD</td>
<td>1/43 (2)</td>
<td>1/33 (3)</td>
<td>1/43 (2)</td>
</tr>
</tbody>
</table>

Among 27 nCR/sCR* patients assessed by flow, all 27 are MRD negative
Response rates based on FISH/cytogenetics are non-differential

Korde et al, ASH 2013, Abstract #538

Phase I/II CRd MMRC Trial
CRd x 24 cycles then Len Maint

<table>
<thead>
<tr>
<th>Response</th>
<th>2 cycles n/N (%)</th>
<th>8 cycles n/N (%)</th>
<th>*Best response n/N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORR (≥PR)</td>
<td>98/100 (98)</td>
<td>72/73 (98)</td>
<td>64/67 (96)</td>
</tr>
<tr>
<td>≥VGPR</td>
<td>87/98 (88)</td>
<td>64/72 (89)</td>
<td>55/64 (86)</td>
</tr>
<tr>
<td>nCR/CR/sCR</td>
<td>5/87 (6)</td>
<td>22/72 (30)</td>
<td>15/64 (23)</td>
</tr>
<tr>
<td>CR/sCR</td>
<td>3/87 (4)</td>
<td>22/72 (30)</td>
<td>15/64 (23)</td>
</tr>
<tr>
<td>VGPR</td>
<td>4/87 (5)</td>
<td>15/72 (21)</td>
<td>10/64 (16)</td>
</tr>
<tr>
<td>PR</td>
<td>1/87 (1)</td>
<td>4/72 (6)</td>
<td>4/64 (6)</td>
</tr>
<tr>
<td>SD</td>
<td>0/87 (0)</td>
<td>1/72 (1)</td>
<td>1/64 (1)</td>
</tr>
</tbody>
</table>

*30% of pts with IMWG high-risk cytogenetics are non-differential

*15% patients with del p53

Korde et al, ASH 2013, Abstract #538

Jasielec et al, ASH 2013, Abstract #3220
Response

Mikael et al, ASH 2013 Abstract 3179

Treatment of SMM

Definition of what is SMM become critical?
If you are going to treat might as well do it fully?
Treatment of SMM

- High-risk SMM (both):
  - Plasmacytosis > 10%
  - IgG ≥3 g, IgA ≥2 g or BJ >1 g/24hrs or
- One criteria plus
  - 95% phenotypically aberrant plasma cells
  - Reductions in one or two uninvolved immunoglobulins > 25%

- Nine 4-week cycles Len 25/Dex (1-4, 12-15)
- Maintenance 10 mg (d 1 to 21) to 2 years
  - Dexamethasone added (20 mg d 1-4)
  - Asymptomatic progression

N Eng J Med 369;5 nejm.438 org august 1, 2013

Treatment of SMM

- 57 lenalidomide and 62 observation

N Eng J Med 369;5 nejm.438 org august 1, 2013
Phase II trial for high-risk SMM: carfilzomib/revlimid/dex

Study open for high-risk smoldering myeloma pts >18 years old

8 cycles CRd Combination Therapy
- Carfilzomib 20/36 mg/m², day 1, 2, 8, 9, 15, 16
- Lenalidomide 25 mg/day, day 1-21
- Dexamethasone 20/10 mg, day 1, 2, 8, 9, 15, 16, 22, 23

24 cycles Rev Extended Dosing
- Lenalidomide 10 mg/day, day 1-21

- Each cycle is 28 days
- Stem cell harvest after ≥4 cycles of CRd for patients <70-75 yrs
- C1D1/2 – Carfilzomib dose is 20 mg/m²
- C1- 4 – Dex dose is 20 mg, C6- 8 – Dex dose is 10 mg

Landgren, et al. ASH abstract #1939: Sat, Dec 7, 2013: 5:30 PM-7:30 PM, Hall G

Response rates in relation to cycles of carfilzomib/revlimid/dex

<table>
<thead>
<tr>
<th>nCR/CR/sCR</th>
<th>8%</th>
<th>58%</th>
<th>83%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean M-Spike (d/dL)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BL</td>
<td>2.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
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<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
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</tbody>
</table>

11/12 (92%) are MRD negative by 8-color flow cytometry of the bone marrow

Landgren, et al. ASH abstract #1939: Sat, Dec 7, 2013: 5:30 PM-7:30 PM, Hall G
Daratumumab
A human CD38 mAb with broad-spectrum killing activity

Slides courtesy of Dr. Torben

Dual mechanism of action by both directly activating NK Cells and through antibody-dependent cell-mediated cytotoxicity (ADCC)

Elotuzumab Synergizes with Lenalidomide to Enhance Myeloma Cell Death

Lenalidomide
Induces myeloma cell injury and lowers threshold for NK cell-mediated killing of myeloma cells by elotuzumab

Lenalidomide
Enhances adaptive and innate immune system including production of IL2 to increase NK cell activity
Elotuzumab Therapy for Relapsed or Refractory Multiple Myeloma

A Progression-free Survival

ORR elotuzumab 79% vs 66% (P<0.001).

Chimeric Antigen Receptor T Cells against CD19 for Multiple Myeloma

ORR elotuzumab 79% vs 66% (P<0.001).

Teamwork

NURSING, PHARMACY, RESEARCH

ACADEMIA → RESEARCH INSTITUTES
NIH/NCI → INDUSTRY
MMRF → BIOTECH
IMF →
Multiple Myeloma and the Immune System

Q&A Session
Dr. Fonseca’s slides are available for download at www.LLS.org/programs

The Leukemia & Lymphoma Society (LLS) offers:
- **Live, Online Chats** that provide a friendly forum to share experiences with others.
  - WEBSITE: www.LLS.org/chat
- **What to ask**: For a list of suggested questions to ask about certain topics, download and print any of the guides found at:
  - WEBSITE: www.LLS.org/whattoask
- **Free education materials**: www.LLS.org/booklets
- **Past myeloma education programs**: www.LLS.org/programs
- **Information Resource Center**: Speak one-on-one with an Information Specialist who can assist you through cancer treatment, financial, and social challenges.
  - EMAIL: infocenter@LLS.org
  - TOLL-FREE PHONE: (800) 955-4572